



**LOUISVILLE METRO  
AIR POLLUTION CONTROL DISTRICT  
850 Barret Ave., Louisville, Kentucky 40204**



**Title V Operating Permit**

Permit No: 87-97-TV (R1)

Plant ID: 741

Effective Date: 4/15/2009

Expiration Date: 4/15/2014

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

**Marathon Petroleum Company LLC  
4510 Algonquin Pkwy  
Louisville, Kentucky 40211**

The applicable procedures of District Regulation 2.16 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Responsible Official (RO) C. T. Case

Application Received: 10-6-2006

RO Title TT&M Manager

Application Number: 10249

Permit Writer Chris Bryant

Date Application Administratively Complete: 12-6-2006

Public Notice Date: 12-1-2008

Proposed Permit Date: 2-6-2009

Air Pollution Control Officer

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**Title V Permit Revisions/Changes**

<b>Revision No.</b>	<b>Issue Date</b>	<b>Public Notice Date</b>	<b>Type</b>	<b>Attachment No./Page No.</b>	<b>Description</b>
N/A	10/6/2000	4/23/2000	Initial	Entire Permit	Initial Permit Issuance
R1	3/27/2009	12/1/2008	Minor	Entire Permit	5 year Renewal; Incorporate STAR Category 1 TAC requirements

### Abbreviations and Acronyms

AFS	-	Airs Facility Subsystem
AIRS	-	Aerometric Information Retrieval System
APCD	-	Air Pollution Control District
ASL	-	Adjusted Significant Level
atm	-	Atmosphere
BACT	-	Best Available Control Technology
Btu	-	British Thermal Unit
CEMS	-	Continuous Emission Monitoring System
CAAA	-	Clean Air Act Amendments (15 November 1990)
HAP	-	Hazardous Air Pollutant
hr	-	hour
lbs	-	Pounds
l	-	Liter
MACT	-	Maximum Achievable Control Technology
m	-	Meter
mg	-	Milligram
mm	-	Millimeter
MM	-	Million
MOCS	-	Management of Change System
NAICS	-	North American Industry Classification System
NSR	-	New Source Review
NO <sub>x</sub>	-	Nitrogen oxides
NSPS	-	New Source Performance Standards
PM	-	Particulate Matter
PM <sub>10</sub>	-	Particulate matter less than 10 microns
ppm	-	Parts per million
PSD	-	Prevention of Significant Deterioration
PMP	-	Preventive Maintenance Plan
psia	-	Pounds per square inch absolute
RACT	-	Reasonably Available Control Technology
SC	-	Specific Condition
SIC	-	Standard Industrial Classification
SIP	-	State Implementation Plan
SO <sub>2</sub>	-	Sulfur dioxide
TAC	-	Toxic Air Contaminant
TAL	-	Threshold Ambient Limit
TAP	-	Toxic Air Pollutant
tpy	-	Tons per year
UTM	-	Universal Transverse Mercator
VOC	-	Volatile Organic Compound

### **Preamble**

Title V of the Clean Air Act Amendments of 1990 required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Jefferson County, Kentucky, the Air Pollution Control District (APCDJC) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations".

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit general conditions define requirements which are generally applicable to all Title V companies under the jurisdiction of APCDJC. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the general conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The general conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The source's Title V permit may include a list of "insignificant activities," as defined in District Regulation 2.16, section 1.22 which was current as of the date the permit was proposed for review by USEPA, Region 4. Activities so identified may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply. No periodic monitoring shall be required for facilities designated as insignificant activities.

**General Conditions**

1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan. (Regulation 2.16, sections 4.1.3, 4.1.13.1 and 4.1.13.7)
2. **Compliance Certification** - The owner or operator shall certify, annually or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification directly to the following address as well as to the District, as set forth in Regulation 2.16, section 4.3.5.4:  
  

*US EPA - Region IV  
Air Enforcement Branch  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-8960*
3. **Compliance Schedule** - A compliance schedule must meet the requirements of Regulation 2.16, section 3.5.9.5. The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16 section 4.3.4. The progress reports shall contain:
  - a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.
  - b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.
4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, it shall,



upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, section 3.4.

5. **Emergency Provision**

- a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - i. An emergency occurred and that the owner or operator can identify the cause of the emergency.
  - ii. The permitted facility was at the time being properly operated.
  - iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit.
  - iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.
- c. This condition is in addition to any emergency or upset provision contained in an applicable requirement. (Regulation 2.16, sections 4.7.1 through 4.7.4)

6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5% per month up to a maximum of 25% of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. (Regulation 2.08, section 1.3)

7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.

8. **Enforceability Requirements** - Except for the conditions that are specifically designated as "District Only Enforceable Conditions", all terms and conditions of this permit, including any provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. (Regulation 2.16, sections 4.2.1 and 4.2.2)
9. **Enforcement Action Defense**
  - a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
  - b. The owner or operator's failure to halt or reduce activity may be a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation. (Regulation 2.16, sections 4.1.13.2 and 4.1.13.3)
10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.
11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit. (Regulation 2.16, section 4.1.13.6)

If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA. (Regulation 2.07, section 10.2)
12. **Insignificant Activities** - The owner or operator shall:
  - a. Notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. (Regulation 2.16, section 5)
  - b. Submit a current list of insignificant activities by April 15 of each year with the annual compliance certification, including an identification of the additions and removals of insignificant activities that occurred during the preceding year. (Regulation 2.16, section 4.3.5.3.6)
13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours:

- a. Enter the premises to inspect any emissions-related activity or records required in this permit.
- b. Have access to and copy records required by this permit.
- c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.
- d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements. (Regulation 2.16, section 4.3.2)

14. **Monitoring and Related Record Keeping and Reporting Requirement** - The owner or operator shall comply with the requirements of Regulation 2.16, section 4.1.9. The owner or operator shall submit all required monitoring reports at least once every six months, unless more frequent reporting is required by an applicable requirement. The reporting period shall be January 1st through June 30th and July 1st through December 31st of each calendar year. All reports shall be postmarked by the 60th day following the end of each reporting period. If surrogate operating parameters are monitored and recorded in lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a single violation by the District for enforcement purposes. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement. All semi-annual compliance reports shall include the following certification statement per Regulation 2.16.

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete”.
- Signature and title of company responsible official.

If a change in the “Responsible Official” (RO) occurs during the term of this permit, the owner or operator shall provide written notification (Form 9400-A and Form AP-0208) to the District within 30 calendar days following the date a change in the designated RO occurs for this facility.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

<u>Reporting Period</u>	<u>Date</u>	<u>Report Due</u>
January 1 through June 30		August 29 <sup>th</sup>
July 1 through December 31		March 1 <sup>st</sup>

Note:

<sup>1</sup> The date for leap years is February 29.

15. **Off-permit Documents**- Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, Section 5. (Regulation 2.16, section 4.1.5)
16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, section 5.8.
17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, sections 2.3 and 5.4.
18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, sections 3 and 5.2.
19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, section 4.1.8.3.
20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16, sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.
21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. (Regulation 2.16, section 4.1.16)
22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, section 5.5.
23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and Permit renewal, in accordance with Regulation 2.16, section 5.7, and all other applicable District Regulations.

24. **Permit Revocation and Termination by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit for cause, in accordance with Regulation 2.16, section 5.11.1.1 through 5.11.1.5. For purposes of Section 5, substantial or unresolved noncompliance includes, but is not limited to:
- a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment.
  - b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District.
  - c. Knowingly making any false statement in any permit application.
  - d. Noncompliance with Regulation 1.07, section 4.2; or
  - e. Noncompliance with KRS Chapter 77.
25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, section 4.6.1.
26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.
27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, section 4.1.13.5.
28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, Section 1; and 2.16, sections 5.1.1.2 and 5.5.4.
29. **Reopening For Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16 section 5.9.
30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued or terminated for cause by EPA in accordance with Regulation 2.16 section 5.10.
31. **Risk Management Plan (112(r))** - For each process subject to Section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.
32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific

circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected. (Regulation 2.16, section 4.1.12)

33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.

34. **Startups, Shutdowns, and Upset Conditions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.

35. **Submittal of Reports, Data, Notifications, and Applications**

- a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16 sections 3.1, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.11.7 shall be submitted to:

*Louisville Metro Air Pollution Control District  
850 Barret Ave  
Louisville, KY 40204-1745*

- b. Documents which are specifically required to be submitted to EPA as set forth in Regulation 2.16 sections 3.3, and 5.8.5 shall be mailed to EPA at the following address:

*US EPA - Region IV  
APTMD - 12th floor  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-3104*

36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

Regulation	Title
1.01	General Provisions
1.02	Definitions
1.03	Abbreviations And Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards And Maintenance Requirements
1.06	Source Self-Monitoring and Reporting

<b>Regulation</b>	<b>Title</b>
1.07	Emissions During Shutdowns, Malfunctions, Startups, and Emergencies
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application
2.02	Air Pollution Regulation Requirements and Minor Facility Exemptions
2.03	Permit Requirements - Non-Title V Construction and Operating Permits and Demolition/Renovation Permits
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.16	Title V Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

**District Only Enforceable:**

<b>Regulation</b>	<b>Title</b>
1.12	Control of Nuisances
1.13	Control of Objectionable Odors

2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
5.01	Standards for Toxic Air Contaminants and Hazardous air Pollutants
5.11	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants
5.12	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants

37. **Stratospheric Ozone Protection Requirements** - Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts A, B, and F. Those requirements include the following restrictions:

- a. Any facility having any refrigeration equipment normally containing fifty (50) pounds of refrigerant, or more, must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added according to 40 CFR 82.166;
- b. No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided in 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved according to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;
- c. No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or II substance in 40 CFR 82, Subpart A, Appendices A and B, except in compliance with 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166.
- d. No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined in 40 CFR 82.152) for service, maintenance, or repair unless the person has been properly trained and certified according to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance according to 40 CFR 82.158 and unless the person observes the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;



- e. No person may dispose of appliances (except small appliances, as defined in 40 CFR 82.152) without using equipment certified for that type of appliance according to 40 CFR 82.158 and without observing the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;
- f. No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82 Subpart F;
- g. If the permittee manufactures, transforms, imports, or exports, a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), the permittee is subject to all requirements as specified in 40CFR82 Subpart A, Production and Consumption Controls. (Regulation 2.16, section 4.1.5)

**Emission Unit U1:** Fourteen (14) Internal Roof Storage Tanks**U1 Applicable Regulations:**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
1.05	Compliance with Emission Standards and Maintenance Requirements	1, 2, 3, 4, & 5
6.13	Standards of Performance for Existing Storage Vessels for VOC	1, 2, 3, 4, 5, & 6
6.43	Daily Emission Limits	1, 2, 3, 4, & 8
7.12	Standards of Performance for New VOC Storage Vessels	1, 2, 3, 4, 7, & 8
40 CFR 60 Subpart A	General Provisions	60.1 through 60.18
40 CFR 60 Subpart Ka	Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and prior to July 23, 1984	60.110a, 60.111a, 60.112a(a)(2), & 60.115a(a & b)
40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	60.110b, 60.111b, 60.112b(a)(1), 60.113b(a), & 60.116b (a, b, c, d, & e)

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions	1 through 4
5.11	Standards of Performance for Existing Sources Emitting Toxic Air Pollutants	1 through 7
5.12	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 6
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air	1 through 6

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
	Contaminant	
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
7.02	Federal New Source Performance Standards Incorporated by Reference	3.22, 3.23

<b>U1 Equipment</b>			
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E3 (T-60)	One (1) 1,680,000 gallon IFR Tank (1980)	5.01, 5.21, 5.23, 5.11, 7.12, 6.43, 40 CFR 60, Subpart Ka	N/A
E4 (T-61)	One (1) 840,000 gallon IFR Tank (1985)	5.01, 5.21, 5.23, 5.11, 7.12, 6.43, 40 CFR 60, Subpart Kb	N/A
E5 (T-165)	One (1) 2,814,000 gallon IFR Tank (1990)	5.01, 5.21, 5.23, 5.12, 7.12, 6.43, 40 CFR 60, Subpart Kb	N/A
E6 (T-119)	One (1) 2,268,000 gallon IFR Tank (2006)	5.01, 5.21, 5.23, 5.12, 7.12, 6.43, 40 CFR 60, Subpart Kb	N/A
E7 (T-156)	One (1) 2,261,520 gallon IFR Tank (2006)	5.01, 5.21, 5.23, 5.12, 7.12, 6.43, 40 CFR 60, Subpart Kb	N/A
E8 (T-157)	One (1) 2,291,520 gallon IFR Tank (2006)	5.01, 5.21, 5.23, 5.12, 7.12, 6.43, 40	N/A

U1 Equipment			
Emission Point	Description	Applicable Regulation	Control ID
		CFR 60, Subpart Kb	
E9 (T-26)	One (1) 1,561,686 gallon IFR Tank (2002)	5.01, 5.21, 5.23, 5.12, 7.12, 6.43, 40 CFR 60, Subpart Kb	N/A
E10 (T-14)	One (1) 963,000 gallon IFR Tank (2000)	5.01, 5.21, 5.23, 5.12, 7.12, 6.43, 40 CFR 60, Subpart Kb	N/A
E11 (T-48)	One (1) 947,016 gallon IFR Tank (1999)	5.01, 5.21, 5.23, 5.12, 7.12, 6.43, 40 CFR 60, Subpart Kb	N/A
E22 (T-113)	One (1) 2,349,900 gallon IFR Tank (1947)	5.01, 5.21, 5.23, 5.11, 6.13, 6.43	N/A
E23 (T-130)	One (1) 2,142,000 gallon IFR Tank (1973)	5.01, 5.21, 5.23, 5.11, 6.13, 6.43	N/A
E24 (T-133)	One (1) 2,268,020 gallon IFR Tank (1964)	5.01, 5.21, 5.23, 5.11, 6.13, 6.43	N/A
E25 (T-162)	One (1) 4,032,000 gallon IFR Tank (1967)	5.01, 5.21, 5.23, 5.11, 6.13, 6.43	N/A
E26 (T-106)	One (1) 3,214,134 gallon IFR Tank (1972)	5.01, 5.21, 5.23, 5.11, 6.13, 6.43	N/A

**U1 Control Devices:** There are no control devices associated with Emission Unit U1.

**U1 Specific Conditions****S1. Standards** (Regulation 2.16, section 4.1.1)**a. VOC**

- i. The owner or operator shall comply with the following requirements:
  - 1) The owner or operator shall install, operate, and maintain internal floating roofs for all gasoline storage tanks with a capacity greater than 39,000 gallons. (Regulation 6.43, section 8.1)
  - 2) All gasoline storage tanks at Marathon Ashland Petroleum LLC, Aetna Terminal shall meet the floating roof seal requirements of 40 CFR Part 60 Subpart Kb. (Regulation 6.43, section 8.2)
- ii. For the storage vessels with an internal floating roof, the owner or operator shall operate and maintain internal floating roofs and meet the seal requirements specified in 40 CFR Part 60, Subpart Kb. A fixed roof in combination with an internal floating roof meeting the following specifications: (40 CFR Part 60, Subpart Kb as referenced by Regulation 6.43)
  - 1) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. [40 CFR 60.112b(a)(1)(i)]
  - 2) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof: [40 CFR 60.112(b)(1)(i)(A)]
    - a) A foam-or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam-or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof

- continuously around the circumference of the tank. [40 CFR 60.112b(a)(ii)(A)]
- b) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [40 CFR 60.112b(a)(ii)(B)]
  - c) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. [40 CFR 60.112b(a)(ii)(C)]
- 3) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. [40 CFR 60.112b(a)(1)(iii)]
  - 4) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [40 CFR 60.112b(a)(1)(iv)]
  - 5) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [40 CFR 60.112b(a)(v)]
  - 6) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [40 CFR 60.112b(a)(1)(vi)]
  - 7) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit

fabric cover that covers at least 90 percent of the opening. [40 CFR 60.112b(a)(1)(vii)]

- 8) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. [40 CFR 60.112b(a)(1)(viii)]
  - 9) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]
- iii. For storage tanks subject to Regulation 6.13, the owner or operator shall comply with the following requirements:
- 1) If the storage vessel has a storage capacity greater than 151,400 liters (40,000 gallons) and if the true vapor pressure of the volatile organic compounds as stored, is equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia) the storage vessel shall be equipped with a floating roof, a vapor recovery system, or their equivalent. (Regulation 6.13, section 3.1)
  - 2) There shall be no visible holes, tears, or other openings in the seal or any seal fabric; and (Regulation 6.13, section 4.1)
  - 3) All openings, except stub drains, shall be equipped with covers, lids, or seals such that: (Regulation 6.13, section 4.2)
    - a) The cover, lid, or seal is in the closed position at all times except when in actual use; and (Regulation 6.13, section 4.2.1)
    - b) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and (Regulation 6.13, section 4.2.2)
    - c) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. (Regulation 6.13, section 4.2.3)
- iv. For storage tanks subject to Regulation 7.12, the owner or operator shall comply with the following requirements:

- 1) If the storage vessel has a storage capacity greater than 151,400 liters (40,000 gallons) and if the true vapor pressure of the VOCs as stored, is equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia) the storage vessel shall be equipped with a floating roof, a vapor recovery system, or their equivalents. (Regulation 7.12, section 3.1)
- 2) There shall be no visible holes, tears, or other openings in the seal or any seal fabric; and (Regulation 7.12, section 4.1)
- 3) All openings, except stub drains, shall be equipped with covers, lids, or seals such that: (Regulation 7.12, section 4.2)
  - a) The cover, lid, or seal is in the closed position at all times except when in actual use; and (Regulation 7.12, section 4.2.1)
  - b) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and (Regulation 7.12, section 4.2.2)
  - c) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. (Regulation 7.12, section 4.2.3)

**b. HAP**

- i. The owner or operator shall not allow or cause the *plant-wide* emissions of any individual HAP to equal or exceed 10 tons during any consecutive 12-month period and 1.0 tons during any calendar month.
- ii. The owner or operator shall not allow or cause the *plant-wide* emissions of all HAPs combined to equal or exceed 25 tons during any consecutive 12-month period and 2.50 tons during any calendar month.
- iii. The owner or operator shall comply with applicable requirements of 40 CFR Part 63, Subpart BBBBBB - *National Emission Standards for Hazardous Air Pollutants for Source Category: Bulk Gasoline Terminals (Area Sources)* on or before the compliance date for existing sources as specified in the MACT rule.

**c. TAC**



- i. The owner or operator shall not allow any TAC emissions to exceed environmentally acceptable levels whether specifically established by modeling or derived from default de minimis levels provided by the District. The owner or operator shall not increase the TAC content in a raw material or substitute any raw materials or additional TACs for those identified in the initial permit application for this process or equipment that would result in an increase in the quantity of a TAC without prior notification to, and approval by, the District. (Regulations 5.01, 5.21, 5.23) (See Comment 1)
- ii. The owner or operator shall not alter the stack heights or any other air dispersion modeling input parameters identified in the initial STAR Category 1 TAC Environmental Acceptability Demonstration without prior approval by the District. The potential emissions of benzene could exceed the de minimis threshold values; therefore Tier 4 air dispersion modeling was performed which resulted in a EAG<sub>C</sub> or Risk of < 1.0 for each individual process. (Regulation 5.01, 5.21, 5.23)
- iii. The owner or operator shall comply with the annual product throughput limits specified in this permit. See Emission Units U4 and U5.

d. **TAP**

Toxic Air Pollutant emissions from this facility are limited to the Adjusted Significance Level emission rates, unless modeling or a BACT analysis has been submitted to, and approved by, the District. Any raw material changes shall be submitted to the District for review and approval. (See Comment 2)

S2. **Monitoring** (Regulation 2.16, section 4.1.9.1)

a. **VOC**

- i. The owner or operator shall comply with the following monitoring requirements for VOC in accordance with 40 CFR Part 60 Subpart Kb: [40 CFR Part 60 Kb as referenced by Regulation 6.43)
  - 1) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid

accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the District in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(3)]

- 2) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B): [40 CFR 60.113b(a)(3)]
  - a) Visually inspect the vessel as specified in paragraph (a)(4) of §60.113b at least every 5 years; or
  - b) Visually inspect the vessel as specified in paragraph (a)(2) of §60.113b.
- 3) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of §60.113b and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of §60.113b. [40 CFR 60.113b(a)(4)]
- 4) The owner or operator shall notify the District in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of §60.113b

to afford the District the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of §60.113b is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the District at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the District at least 7 days prior to the refilling. [40 CFR 60.113b(a)(5)]

- ii. The owner or operator shall monitor and maintain records of the product name and throughput (in gallons) for each storage tank during each calendar month and consecutive 12-month period.
- iii. The owner or operator shall comply with the monitoring requirements established in Marathon's Regulation 1.05 VOC Compliance Plan dated February 14, 1993 (Revised 2000) and subsequent updated 1.05 Compliance Plan dated February 14, 2006.

**b. HAP**

- i. The owner or operator shall monitor and maintain records of the throughput (in gallons) for each product type for each storage tank during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall comply with applicable monitoring requirements of 40 CFR Part 63, Subpart BBBBBB - *National Emission Standards for Hazardous Air Pollutants for Source Category: Bulk Gasoline Terminals (Area Sources)* on or before the compliance date for existing sources as specified in the MACT rule.

**c. TAC**

The owner or operator shall monitor and maintain records of the throughput (in gallons) for each product type for each storage tank during each calendar month and consecutive 12-month period.

**d. TAP**

- i. The owner or operator shall monitor and maintain records of the throughput (in gallons) for each product type for each storage tank.

- ii. See Specific Condition S2.a. for additional compliance monitoring requirements.

**S3. Record Keeping** (Regulation 2.16, section 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. VOC**

- i. 

The owner or operator shall maintain monthly records that show the throughput (in gallons) of each product type for each storage tank during each calendar month and consecutive 12-month period.
- ii. The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [60.116b(b)]
- iii. The owner or operator shall keep a record of each inspection performed as required by §60.113b(a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). [60.115b(a)(2)]
- iv. If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the District within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. [60.115b(a)(3)]
- v. After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other

control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the District within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made. [60.115b(a)(4)]

- vi. The owner or operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.
- vii. Available data on the typical Reid vapor pressure and the maximum expected storage temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the District specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)]
- viii. The owner or operator shall maintain monthly records, including calculations, that show the total *plant-wide* VOC emissions during each calendar month and consecutive 12-month period.

**b. HAP**

- i. The owner or operator shall maintain monthly records that show the throughput (in gallons) of each product type for each storage tank during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall maintain documentation of the weight percent of each individual HAP for each product type stored in each tank.
- iii. The owner or operator shall maintain monthly records, including calculations, that show the total *plant-wide* emissions of each individual HAP and the total *plant-wide* combined HAPs during each calendar month and consecutive 12-month period.

- iv. The owner or operator shall comply with applicable record keeping requirements of 40 CFR Part 63, Subpart BBBBBB - *National Emission Standards for Hazardous Air Pollutants for Source Category: Bulk Gasoline Terminals (Area Sources)* on or before the compliance date for existing sources specified in the MACT rule.
- v. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP containing material used at this plant.

c. **TAC**

- i. The owner or operator shall maintain monthly records of the throughput (in gallons) for each product type for each storage tank during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall maintain a copy onsite of the Marathon Petroleum Company's STAR Category 1 TAC Environmental Acceptability Determination dated December 19, 2006 and subsequent information provided to the District including all air dispersion modeling input parameters and the resulting associated EAG<sub>C</sub> or Risk, in units of risk in one million for benzene.
- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each TAC containing material used at this plant.

d. **TAP**

- i. The owner or operator shall maintain monthly records of the throughput (in gallons) for each product type for each storage tank. (See Comment 2)
- ii. See Specific Condition S3.a. for additional record keeping requirements.

S4. **Reporting** (Regulation 2.16, section 4.1.9.3)

a. **VOC**

- i. Identification of all periods of failure to comply with a compliance monitoring requirement specified in the terms and conditions for Emission Unit U1. The report shall include the date, brief description of the compliance monitoring requirement that was not met, and corrective action taken to prevent reoccurrence of the situation that resulted in failure to comply with a compliance monitoring requirement. If there are no periods

of failure to comply with a compliance monitoring requirement during a reporting period, the owner or operator shall submit a negative declaration;

- ii. Identification of all periods of failure to comply with a record keeping requirement specified in the terms and conditions for Emission Unit U1. The report shall include the date, brief description of the record keeping requirement that was not met, and corrective action taken to prevent reoccurrence of the situation that resulted in failure to comply with a record keeping requirement. If there are no periods of failure to comply with a record keeping during a reporting period, the owner or operator shall submit a negative declaration; and
- iii. For storage tanks subject to Kb, the owner or operator shall comply with the following reporting requirements:
  - 1) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the District within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made; and
  - 2) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the District within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.

b. **HAP**

Identification of all periods of exceeding a *plant-wide* HAP emission limit during a reporting period. If there are no periods of exceeding a HAP emission limit specified in this permit during a reporting period, the owner or operator shall submit a negative declaration.

c. **TAC**

The owner or operator shall submit notification to, and receive approval by, the District for any raw material change that increases the TAC content or introduces new TACs in this process equipment not identified in the permit application.

d. **TAP**

Identification of all periods of failure to comply with a compliance monitoring requirement specified in the terms and conditions for Emission Unit U1. The report shall include the date, brief description of the compliance monitoring requirement that was not met, and corrective action taken to prevent reoccurrence of the situation that resulted in failure to comply with a compliance monitoring requirement. If there are no periods of failure to comply with a compliance monitoring requirement during a reporting period, the owner or operator shall submit a negative declaration.

#### **U1 Comments**

1. Marathon Petroleum Company, LLC is a major source for VOC, single HAP, and total HAPs based on uncontrolled potential emission rates operating at maximum capacity and 8,760 hours per year.
2. The potential hourly emissions of benzene, ethylbenzene, naphthalene, 1,2,4-trimethyl benzene, toluene, and xylene are below the ASL for each storage tank.



**Emission Unit U2:** Eight (8) Horizontal fixed-roof storage tanks.

**U2 Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
1.05	Compliance with Emission Standards and Maintenance Requirements	1, 2, 3, 4, & 5
7.12	Standards of Performance for New VOC Storage Vessels	1, 2, 3, 4, 7, & 8

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions	1 through 4
5.12	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 6
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

<b>U2 Equipment</b>			
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E30 (T-179)	One (1) 350 gallon HFR Tank (2005) (Additive)	5.12, 7.12, 5.01, 5.21, 5.23	N/A

<b>U2 Equipment</b>			
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E31 (T-180)	One (1) 550 gallon HFR Tank (2005) (Additive)	5.12, 7.12, 5.01, 5.21, 5.23	N/A
E20 (T-178)	One (1) 8,000 gallon HFR Tank (2005) (Additive)	5.01, 5.21, 5.23, 5.12, 7.12	N/A
E18 (T-176)	One (1) 10,000 gallon HFR (2005) (Transmix)	5.12, 5.01, 5.21, 5.23, 7.12	N/A
E19 (T-177)	One (1) 500 gallon HFR Tank (2005) (Red Dye)	5.01, 5.21, 5.23, 5.12, 7.12	N/A
E32 (T-183)	One (1) 3,000 gallon HFR Tank (2003) (Red Dye)	5.12, 5.01, 5.21, 5.23, 7.12	N/A
E16 (T-174)	One (1) 3,000 gallon (dye for diesel fuel)	5.12, 5.01, 5.21, 5.23, 7.12	N/A
E17 (T-175)	One (1) 10,000 gallon (gasoline additive)	5.12, 5.01, 5.21, 5.23, 7.12	N/A

**U2 Control Devices:** There are no control devices associated with Emission Unit U2.

**U2 Specific Conditions****S1. Standards** (Regulation 2.16, section 4.1.1)**a. VOC**

The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia. (Regulation 7.12, section 3)

**b. HAP**

i. The owner or operator shall not allow or cause the *plant-wide* emissions of any individual HAP to equal or exceed 10 tons during any consecutive 12-month period and 1.0 tons during any calendar month.

ii. The owner or operator shall not allow or cause the *plant-wide* emissions of all HAPs combined to equal or exceed 25 tons during any consecutive 12-month period and 2.50 tons during any calendar month.

**c. TAC**

For storage tanks T-179 and T-180, the owner or operator shall not allow any TAC emissions to exceed environmentally acceptable levels whether specifically established by modeling or derived from default de minimus levels provided by the District. The owner or operator shall not increase the TAC content in a raw material or substitute any raw materials or additional TACs for those identified in the initial permit application for this process or equipment that would result in an increase in the quantity of a TAC without prior notification to, and approval by, the District. (Regulations 5.01, 5.21, 5.23)

**d. TAP**

Toxic Air Pollutant emissions from this facility are limited to the Adjusted Significance Level emission rates, unless modeling or a BACT analysis has been submitted to, and approved by, the District. Any raw material changes shall be submitted to the District for review and approval. (See Comment 3)

**S2. Monitoring** (Regulation 2.16, section 4.1.9.1)**a. VOC**

See Specific Condition S3.a.

b. **HAP**

The owner or operator shall monitor and maintain records of the throughput (in gallons) for each product type for each storage tank during each calendar month and consecutive 12-month period.

c. **TAC**

For storage tanks T-179 and T-180, the owner or operator shall monitor and maintain records of the throughput (in gallons) for each product type for each storage tank during each calendar month and consecutive 12-month period.

d. **TAP**

The owner or operator shall monitor and maintain records of the product type stored in each storage tank.

S3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

The owner or operator shall maintain records of the material stored in each storage vessel. If the contents of the storage vessels are changed, a record shall be made of the new contents, the new vapor pressure, and the date of the change in service.

b. **HAP**

- i. The owner or operator shall maintain monthly records that show the throughput (in gallons) of each HAP containing product for each storage tank during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall maintain documentation of the weight percent of each individual HAP for each product stored in each storage vessel.
- iii. The owner or operator shall maintain monthly records, including calculations, that show the total *plant-wide* emissions of each individual HAP and the total *plant-wide* combined HAPs during each calendar month and consecutive 12-month period.

- iv. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP containing material used at this plant.

c. **TAC**

- i. For storage tanks T-179 and T-180, the owner or operator shall maintain monthly records of the throughput (in gallons) of each TAC containing material for each storage tank during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall maintain a copy onsite of the Marathon Petroleum Company's STAR Category 1 TAC Environmental Acceptability Determination dated December 19, 2006 and subsequent information provided to the District including all air dispersion modeling input parameters and the resulting associated EAG<sub>C</sub> or Risk, in units of risk in one million for benzene.
- iii. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each TAC containing material stored in each storage tank.

d. **TAP**

The owner or operator shall maintain monthly records of the product type stored in each storage tank.

S4. **Reporting** (Regulation 2.16, section 4.1.9.3)

a. **VOC**

There are no VOC compliance reporting requirements for the tanks listed in Emission Unit U3.

b. **HAP**

Identification of all periods of exceeding a *plant-wide* HAP emission limit during a reporting period. If there are no periods of exceeding a HAP emission limit specified in this permit during a reporting period, the owner or operator shall submit a negative declaration.

c. **TAC**

The owner or operator shall submit notification to, and receive approval by, the District for any raw material change that increases the TAC content or introduces new TACs in this process equipment not identified in the permit application.

d. **TAP**

There are no compliance reporting requirements for TAPs for this equipment.

**U2 Comments**

1. For the storage vessels, Regulation 7.12 applies due to the size of the tanks, however, since the vapor pressure as stored is less than 1.5 psia there are no applicable emission standards.
2. For storage tanks T-179 and T-180, the storage tanks are subject to the STAR program, however, all toxic air contaminants (TACs) are below the de minimis values, either by potential emissions or MSDS weight percent. The emissions of TACs from this project are excluded from the STAR Environmental Acceptability Demonstration per Regulation 5.21, section 2.1.
3. The potential hourly emissions of all TAPs are below the ASL values.

**Emission Unit U3:** One (1) terminal truck loading rack equipped with a John Zink dual bed carbon adsorption vapor recovery unit.

### U3 Applicable Regulations

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
1.05	Compliance with Emission Standards and Maintenance Requirements	1, 2, 3, 4, & 5
7.20	Standards of Performance for New Gasoline Loading Facilities at Bulk Plants	1, 2, 3, 4, & 5
7.22	Standards of Performance for New Volatile Organic Loading Facilities	1, 2, 3, & 4
40 CFR 60 Subpart A	General Provisions	60.1 through 60.18
40 CFR 60 Subpart XX	Standards of Performance for Bulk Gasoline Terminals	60.500, 60.501, 60.502 (a, b, d, e, f, g, h, i, & j, 60.503 & 60.505
40 CFR 63 Subpart R	National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)	63.428(i)(3)

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions	1 through 4
5.12	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 6
5.02	Adoption of National Emission Standards for Hazardous Air Pollutants	3.1, 3.16
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
7.02	Adoption of Federal New Source Performance Standards	3.60

<b>U3 Equipment</b>			
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E1	One (1) Truck Loading Rack (1999)	1.05, 5.12, 5.01, 5.21, 5.23, 7.20, 7.22, 40 CFR 60 Subpart XX & 40 CFR Part 63, Subpart R	C1 (Carbon Adsorption) or C3 (Flare)

**U3 Control Devices:**

<b>ID</b>	<b>Description</b>	<b>Performance Indicator</b>	<b>Stack ID</b>
C1	One (1) John Zink dual bed carbon adsorption vapor recovery unit	See Specific Conditions	S1
C3	Zink or Rane Flare (backup)	See Specific Conditions	S3



**U3 Specific Conditions****S1. Standards** (Regulation 2.16, section 4.1.1)**a. VOC**

- i. The owner or operator shall comply with the following standards for volatile organic compounds in accordance with Regulation 7.20: (Regulation 7.20, Section 3)

No owner or operator of any loading facility shall load gasoline unless such facility is equipped with a vapor control system which is in good working order and in operation. Approval to load gasoline without the emissions being controlled by the carbon adsorption unit or a flare will require prior District approval.

- ii. The owner or operator of an affected facility shall install, maintain, and operate: (Regulation 7.20, Section 3.1)

- 1) Stationary storage tank control devices according to Regulation 7.12 or 6.13. (Regulation 7.20, Section 3.1.1)

- 2) A vapor balance system for: (Regulation 7.20, Section 3.1.2)

- a) Filling of stationary storage tanks from transport vehicle tanks; and (Regulation 7.20, Section 3.1.2.1)

- b) Filling of transport vehicle tanks from stationary storage tanks. (Regulation 7.20, Section 3.1.2.2)

- 3) For loading into transport vehicle tanks, either: (Regulation 7.20, Section 3.1.3)

- a) A submerged fill tube system; or (Regulation 7.20, Section 3.1.3.1)

- b) A bottom fill system. (Regulation 7.20, Section 3.1.3.2)

- iii. The vapor balance system shall be equipped with fittings which are vapor tight and will automatically close upon disconnection so as to prevent the release of organic material. (Regulation 7.20, Section 3.2)

- iv. The cross-sectional area of the vapor return hose must be at least 50% of the cross-sectional area of the liquid fill line and free of flow restrictions. (Regulation 7.20, Section 3.3)
- v. The vapor balance system must be equipped with interlocking devices which prevent transfer of gasoline until the vapor return hose is connected. (Regulation 7.20, Section 3.4)
- vi. Transport vehicle tank hatches shall be closed at all times during loading operations. (Regulation 7.20, Section 3.5)
- vii. There shall be no leaks from the pressure/vacuum relief valves and hatch covers of the stationary storage tanks during loading. (Regulation 7.20, Section 3.6)
- viii. The pressure relief valves on storage vessels and tank trucks or trailers shall be set to release at no less than 0.7 psig unless a lower setting is required by applicable fire codes. (Regulation 7.20, Section 3.7)
- ix. The owner or operator shall not load gasoline into any transport vehicle or receive gasoline from any transport vehicle which does not have proper fittings for connection of the vapor balance system, nor shall the owner or operator load or receive gasoline unless the vapor balance system is properly connected and in good working order. Except as provided in section 3.9, the fittings on the transport vehicle tanks must be vapor tight and automatically close upon disconnection so as to prevent the release of organic material. (Regulation 7.20, Section 3.8)
- x. The following shall apply to the loading of a transport vehicle tank by means of a submerged fill tube system: (Regulation 7.20, Section 3.9)
  - 1) When inserted into the tank, the submerged fill tube system must form a vapor tight seal with the tank; and (Regulation 7.20, Section 3.9.1)
  - 2) Tank hatches are to be opened for the minimum time necessary to insert or remove the submerged fill tube system. (Regulation 7.20, Section 3.9.2)
- xi. No owner or operator shall permit gasoline to be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation. (Regulation 7.20, Section 3.10)

- xii. On or after December 31, 1982, no owner or operator of an affected facility shall allow loading of a tank truck unless the following provisions are met: (Regulation 7.20, Section 3.11)
- 1) The tank truck has a valid Kentucky pressure-vacuum test sticker as required by Regulation 6.37 attached and visibly displayed; (Regulation 7.20, Section 3.11.1)
  - 2) The vapor balance system and associated equipment are designed and operated to prevent gauge pressure in the tank truck from exceeding 18 inches of water and prevent vacuum from exceeding six inches of water; (Regulation 7.20, Section 3.11.2)
  - 3) A pressure tap or any equivalent system as approved by the District is installed on the vapor balance system so that a liquid manometer supplied by the District can be connected by an inspector to the tap in order to determine compliance with section 3.11.2. The pressure tap shall be installed by the owner or operator as close as possible to the connection with the delivery tank, and shall consist of a 1/4 inch tubing connector which is compatible with the use of 3/16 inch inside diameter plastic tubing; and (Regulation 7.20, Section 3.11.3)
  - 4) During loading, there is no reading greater than or equal to 100% of the lower explosive limit (LEL, measured as propane) at a distance of 2.5 centimeters around the perimeter of a potential leak source associated with the vapor balance system of a bulk gasoline plant as detected by a combustible gas detector using the test procedure in section 5. (Regulation 7.20, Section 3.11.4)
- xiii. The owner or operator shall comply with the following standards for volatile organic compounds in accordance with Regulation 7.22: (Regulation 7.22 section 3)

No owner or operator of any loading facility from which 20,000 gallons or more of volatile organic materials are loaded in any one day shall load such materials unless such facility is equipped with a device which reduces the emissions of all hydrocarbon vapors and gases by at least 90% by weight, and which is properly installed, in good working order, and in operation. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in

use or to accomplish complete drainage before the loading device is disconnected.

(Regulation 7.22 section 3.1)

- xiv. The owner or operator shall comply with the following standards for volatile organic compounds in accordance with 40 CFR Part 60 Subpart XX:
- 1) Each affected facility shall be equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks during product loading. [40 CFR 60.502(b)]
  - 2) The emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks shall not exceed 10 milligrams of total organic compounds per liter of gasoline loaded. [40 CFR 60.502(b)] (See Comment 2)
  - 3) Each vapor collection system shall be designed to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack. [40 CFR 60.502(d)]
  - 4) Loadings of liquid product into gasoline tank trucks shall be limited to vapor-tight gasoline tank trucks using the following procedures: [40 CFR 60.502(e)]
    - a) The owner or operator shall obtain the vapor tightness documentation described in §60.505(b) for each gasoline tank truck which is to be loaded at the affected facility. [40 CFR 60.502(e)(1)]
    - b) The owner or operator shall require the tank identification number to be recorded as each gasoline tank truck is loaded at the affected facility. [40 CFR 60.502(e)(2)]
    - c) The owner or operator shall cross-check each tank identification number obtained in paragraph (e)(2) of this section with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded, unless either of the following conditions is maintained: [40 CFR 60.502(e)(3)(i)]

- (A) If less than an average of one gasoline tank truck per month over the last 26 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed each quarter; or [40 CFR 60.502(e)(3)(i)(A)]
- (B) If less than an average of one gasoline tank truck per month over the last 52 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed semiannually. [40 CFR 60.502(e)(3)(i)(B)]
- (C) If either the quarterly or semiannual cross-check provided in paragraphs (e)(3)(i) (A) through (B) of §60.502 reveals that these conditions were not maintained, the source must return to biweekly monitoring until such time as these conditions are again met. [§60.502(e)(3) amended at 64 FR 7466, Feb. 12, 1999, effective April 13, 1999] [40 CFR 60.502(e)(3)(ii)]
- d) The terminal owner or operator shall notify the owner or operator of each non-vapor-tight gasoline tank truck loaded at the affected facility within 1 week of the documentation cross-check in paragraph (e)(3) of §60.502. [§60.502(e)(4)]
- e) The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline tank truck will not be reloaded at the affected facility until vapor tightness documentation for that tank is obtained. [40 CFR 60.502(e)(5)]
- f) Alternate procedures to those described in paragraphs (e)(1) through (5) of §60.502 for limiting gasoline tank truck loadings may be used upon application to, and approval by, the District. [40 CFR 60.502(e)(6)]
- 5) The owner or operator shall act to assure that loadings of gasoline tank trucks at the affected facility are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system. [40 CFR 60.502(f)]
- 6) The owner or operator shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each

loading of a gasoline tank truck at the affected facility. Examples of actions to accomplish this include training drivers in the hookup procedures and posting visible reminder signs at the affected loading racks. [40 CFR 60.502(g)]

- 7) The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading. This level is not to be exceeded when measured by the procedures specified in §60.503(d). [40 CFR 60.502(h)]
  - 8) No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 pascals (450 mm of water). [40 CFR 60.502(i)]
  - 9) The provisions of 40 CFR Part 60 Subpart A apply to the loading rack except as otherwise specified in 40 CFR Part 60 Subpart XX.
- xv. The owner or operator shall control the emissions from the terminal loading rack with a portable vapor combustion unit (enclosed or open flare) during all periods of loading gasoline when the John Zink carbon adsorption unit (VRU) is offline. Loading of gasoline is not allowed unless the emissions are being controlled by the carbon adsorption unit or a flare.

b. **HAP** (Regulation 2.16, section 4.1.1)

- i. The owner or operator shall not allow or cause the *plant-wide* emissions of any individual HAP to equal or exceed 10 tons during any consecutive 12-month period and 1.0 tons during any calendar month.
- ii. The owner or operator shall not allow or cause the *plant-wide* emissions of all HAPs combined to equal or exceed 25 tons during any consecutive 12-month period and 2.50 tons during any calendar month.
- iii. The owner or operator shall not allow or cause the throughput of gasoline and fuel oil to exceed the following limits during any consecutive 12-month period: (Regulation 2.16, section 4.1.1)

Limit (gal/consecutive 12-month period)	Product
300,000,000	Gasoline
300,000,000	Fuel Oil

- iv. The owner or operator shall comply with applicable requirements of 40 CFR Part 63, Subpart BBBBBB - *National Emission Standards for Hazardous Air Pollutants for Source Category: Bulk Gasoline Terminals (Area Sources)* on or before the compliance date for existing sources as specified in the MACT rule.

c. **TAC**

- i. The owner or operator shall not allow any TAC emissions to exceed environmentally acceptable levels whether specifically established by modeling or derived from default de minimis levels provided by the District. The owner or operator shall not increase the TAC content in a raw material or substitute any raw materials or additional TACs for those identified in the initial permit application for this process or equipment that would result in an increase in the quantity of a TAC without prior notification to, and approval by, the District. (Regulations 5.01, 5.21, 5.23) (See Comment 1)
- ii. The owner or operator shall not alter the stack heights or any other air dispersion modeling input parameters identified in the initial STAR Category 1 TAC Environmental Acceptability Demonstration without prior approval by the District. The potential emissions of benzene could exceed the de minimis threshold values; therefore Tier 4 air dispersion modeling was performed which resulted in a  $EAG_C$  or Risk of  $< 1.0$  for each individual process. (Regulation 5.01, 5.21, 5.23)
- iii. The owner or operator shall not allow or cause the emissions of any Category 1 TAC to exceed the ambient goals for environmental acceptability in accordance with District regulation 5.21. The owner or operator shall comply with the product throughput limits in Emission Units U4 and U5 to assure that the emissions of each individual Category 1 TAC meets the EA Goals or Carcinogenic Risk ( $EAG_C$ ) of  $1.0 \times 10^{-6}$  in accordance with District regulation 5.21, section 2.5.1. (Regulations 5.01, 5.21, 5.23)
- iv. The owner or operator shall control the emissions from the terminal loading rack with a portable vapor combustion unit (enclosed or open flare) during all periods of loading gasoline when the John Zink carbon adsorption unit (VRU) is offline. Loading of gasoline is not allowed unless the emissions are being controlled by the carbon adsorption unit or a flare.

d. **TAP**

Toxic Air Pollutant emissions from this facility are limited to the Adjusted Significance Level emission rates, unless modeling or a BACT analysis has been submitted to, and approved by, the District. Any raw material changes shall be submitted to the District for review and approval. (See Comment 2)

S2. **Monitoring** (Regulation 2.16, section 4.1.9.1)

a. **VOC**

- i. For purposes of demonstrating ongoing compliance with the annual *plant-wide* VOC emission limits specified in this permit, the owner or operator shall monitor and maintain records of the throughput (in gal) of each product type processed through the terminal loading rack during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall perform semi-annual and annual maintenance checks on the carbon adsorption unit (VRU). The checks include, but are not limited to, a thorough check of the VRU's valves, flanges, pumps, seals, gauges, fluid levels, piping, and associated loading rack components to check for leaks, corrosion, or any equipment defects.
- iii. The owner or operator shall maintain a daily and weekly checklist as described in the 1.05 Compliance Plan dated April 2000 (revised on February 14, 2006). The checklist includes, but is not limited to, maximum vacuum pulled during the regeneration cycle, and the gasoline supply temperature.
- iv. For each portable vapor combustion unit (open flare), the owner or operator shall monitor the presence of a flame at least once per day for each day the flare is in operation.
- v. Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for total organic compounds liquid or vapor leaks. For purposes of this paragraph, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected. [40 CFR 60.502(j)]

b. **HAP**



- i. The owner or operator shall monitor and maintain records of the product type and quantity (in gallons) of each HAP containing material loaded through the terminal loading rack.
- ii. The owner or operator shall comply with applicable monitoring requirements of 40 CFR Part 63, Subpart BBBBBB - *National Emission Standards for Hazardous Air Pollutants for Source Category: Bulk Gasoline Terminals (Area Sources)* on or before the compliance for existing sources as specified in the MACT rule.

c. **TAC**

The owner or operator shall monitor and maintain records of the product type and quantity (in gallons) of each TAC containing material loaded through the terminal loading rack.

d. **TAP**

The owner or operator shall comply with the monitoring requirements in Specific Condition S2.a.

S3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

- i. The owner or operator shall maintain daily records of the throughput (in gal) of each product type processed through the terminal loading rack.
- ii. The owner or operator shall maintain monthly records, including calculations, that show the *plant-wide* calendar month and consecutive 12-month total VOC emissions.
- iii. The owner or operator shall maintain records that identify all periods when the carbon adsorption unit was offline and the emissions from the terminal loading rack were being controlled by a portable vapor combustion unit (enclosed or open flare). The records shall include the date, duration of time (including the start and stop time) that the emissions were being controlled by a flare, identification of which flare was controlling the emissions from the loading rack.

- iv. The owner or operator shall maintain a daily and weekly checklist in accordance with the Marathon Petroleum Company, LLC Regulation 1.05 Compliance Plan. The checklist includes, but is not limited to, maximum vacuum pulled during the regeneration cycle, gasoline supply temperature, and the results of the visual inspections of the Zink carbon adsorption unit.
- v. The tank truck vapor tightness documentation required under §60.502(e)(1) shall be kept on file at the terminal in a permanent form available for inspection. [40 CFR 60.505(a)]
- vi. The documentation file for each gasoline tank truck shall be updated at least once per year to reflect current test results as determined by Method 27. This documentation shall include, as a minimum, the following information: [40 CFR 60.505(b)]
  - 1) Test title: Gasoline Delivery Tank Pressure Test—EPA Reference Method 27.
  - 2) Tank owner and address.
  - 3) Tank identification number.
  - 4) Testing location.
  - 5) Date of test.
  - 6) Tester name and signature.
  - 7) Witnessing inspector, if any: Name, signature, and affiliation.
  - 8) Test results: Actual pressure change in 5 minutes, mm of water (average for 2 runs).
- vii. A record of each monthly leak inspection required under §60.502(j) shall be kept on file at the terminal for at least 2 years. Inspection records shall include, as a minimum, the following information: [40 CFR 60.505(c)]
  - 1) Date of inspection.
  - 2) Findings (may indicate no leaks discovered; or location, nature, and severity of each leak).
  - 3) Leak determination method.
  - 4) Corrective action (date each leak repaired; reasons for any repair interval in excess of 15 days).
  - 5) Inspector name and signature.
- viii. The terminal owner or operator shall keep documentation of all notifications required under §60.502(e)(4) on file at the terminal for at least 2 years. [40 CFR 60.505(d)]

- ix. As an alternative to keeping records at the terminal of each gasoline cargo tank test result as required in paragraphs (a), (c), and (d) of §60.505, an owner or operator may comply with the requirements in either paragraph (e)(1) or (2) of §60.505. [40 CFR 60.505(e)]
  - 1) An electronic copy of each record is instantly available at the terminal. [40 CFR 60.505(e)(1)]
    - (A) The copy of each record in paragraph (e)(1) of §60.505 is an exact duplicate image of the original paper record with certifying signatures.
    - (B) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (e)(1) of §60.505.
  - 2) For facilities that utilize a terminal automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (e.g., via a card lock-out system), a copy of the documentation is made available (e.g., via facsimile) for inspection by permitting authority representatives during the course of a site visit, or within a mutually agreeable time frame. [40 CFR 60.505(e)(2)]
    - (A) The copy of each record in paragraph (e)(2) of §60.505 is an exact duplicate image of the original paper record with certifying signatures.
    - (B) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (e)(2) of §60.505.
  - 3) The owner or operator of an affected facility shall keep records of all replacements or additions components performed on an existing vapor processing system for at least 5 years.
- x. The owner or operator shall maintain records to document that the facility parameters established under §63.420(c) have not been exceeded. [40 CFR 63.428(i)(2)]

b. **HAP**

- i. The owner or operator shall maintain monthly records that show the throughput (in gallons) of each product type loaded through the

terminal loading rack during each calendar month and consecutive 12-month period.

- ii. The owner or operator shall maintain documentation of the weight percent of each individual HAP for each product type loaded through the terminal loading rack.
- iii. The owner or operator shall maintain monthly records, including calculations, that show the total *plant-wide* emissions of each individual HAP during each calendar month and consecutive 12-month period.
- iv. The owner or operator shall maintain monthly records, including calculations, that show the total *plant-wide* combined HAPs during each calendar month and consecutive 12-month period.
- v. The owner or operator shall comply with applicable record keeping requirements of 40 CFR Part 63, Subpart BBBBBB - *National Emission Standards for Hazardous Air Pollutants for Source Category: Bulk Gasoline Terminals (Area Sources)* on or before the compliance date for existing sources as specified in the MACT rule.
- vi. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each HAP containing material used at this plant.

c. **TAC**

- i. The owner or operator shall maintain monthly records of the quantity (in gallons) of each TAC containing material loaded through the terminal loading rack during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall maintain a copy onsite of the Marathon Petroleum Company's STAR Category 1 TAC Environmental Acceptability Determination dated December 19, 2006 and subsequent information provided to the District including all air dispersion modeling input parameters and the resulting associated EAG<sub>C</sub> or Risk, in units of risk in one million for benzene.
- iii. The owner or operator shall maintain records that identify all periods when the carbon adsorption unit was offline and the emissions from the terminal loading rack were being controlled by a portable vapor combustion unit (enclosed or open flare). The records shall include the date, duration of time (including the start and stop time) that the emissions were being controlled by a flare, identification of which flare was controlling the emissions from the loading rack.

- iv. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each TAC containing material used at this plant.

d. **TAP**

The owner or operator shall comply with the record keeping requirements in Specific Condition S3.a.

S4. **Reporting** (Regulation 2.16, section 4.1.9.3)

a. **VOC**

- i. The total gallons of gasoline loaded through the terminal loading rack during each calendar month in the reporting period and the consecutive 12-month total gallons of gasoline loaded through the terminal loading rack for each month in the reporting period;
- ii. The total gallons of fuel oil loaded through the terminal loading rack during each calendar month in the reporting period and the consecutive 12-month total gallons of fuel oil loaded through the terminal loading rack for each month in the reporting period;
- iii. Identification of all periods when the Zink carbon adsorption unit was offline and the emissions were being controlled by a portable flare when loading gasoline in the terminal loading rack. The report shall include the date, the total number of hours the emissions were being controlled by a flare, and the cause or reason the Zink carbon adsorption unit was offline or not in operation;
- iv. The total *plant-wide* calendar month VOC emissions for each month in the reporting period; and
- v. The total *plant-wide* consecutive 12-month VOC emissions for each month in the reporting period.

b. **HAP**

- i. Identification of all periods when the Zink carbon adsorption unit was offline and the emissions were being controlled by a portable flare when loading gasoline in the terminal loading rack;
- ii. The total *plant-wide* calendar month emissions of each individual HAP for each month in the reporting period;
- iii. The total *plant-wide* consecutive 12-month emissions of each individual HAP for each month in the reporting period;
- iv. The total *plant-wide* calendar month and consecutive 12-month emissions of all HAPs combined for each month in the reporting period; and

- v. The owner or operator shall submit annual reports to the District that the facility parameters established under §63.420(c) have not been exceeded. [40 CFR 63.428(i)(3)]

c. **TAC**

- i. Identification of all periods when the Zink carbon adsorption unit was offline and the emissions were being controlled by a portable flare when loading gasoline through the terminal loading rack; and
- ii. The owner or operator shall submit notification to, and receive approval by, the District for any raw material change that increases the TAC content or introduces new TACs in this process equipment not identified in the permit application.

d. **TAP**

See Specific Condition S4.a.

S5. **Testing** (Regulation 2.16, section 4.1.9.1.2)

**VOC**

- i. The owner or operator shall conduct compliance testing within 5 years after the effective date of this permit for purposes of demonstrating ongoing compliance with the VOC emission standard of 10 mg/l of gasoline loaded. In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). The three-run requirement of §60.8(f) does not apply to this subpart. [40 CFR 60.503(a)]
- ii. Immediately before the performance test required to determine compliance with §60.502(b), (c), and (h), the owner or operator shall use Method 21 to monitor for leakage of vapor all potential sources in the terminal's vapor collection system equipment while a gasoline tank truck is being loaded. The owner or operator shall repair all leaks with readings of 10,000 ppm (as methane) or greater before conducting the performance test. [40 CFR 60.503(a)]
- iii. The owner or operator shall determine compliance with the standards in §60.502(b) and (c) as follows: [40 CFR 60.503(c)]
  - 1) The performance test shall be 6 hours long during which at least 300,000 liters of gasoline is loaded. If this is not possible, the test may be continued the same day until 300,000 liters of gasoline is loaded or the test may be resumed the next day with another complete 6-hour period. In the latter

case, the 300,000-liter criterion need not be met. However, as much as possible, testing should be conducted during the 6-hour period in which the highest throughput normally occurs. [40 CFR 60.503(c)(1)]

- 2) If the vapor processing system is intermittent in operation, the performance test shall begin at a reference vapor holder level and shall end at the same reference point. The test shall include at least two startups and shutdowns of the vapor processor. If this does not occur under automatically controlled operations, the system shall be manually controlled. [40 CFR 60.503(c)(2)]
- 3) The emission rate (E) of total organic compounds shall be computed using the following equation: [40 CFR 60.503(c)(3)]

$$E = K \sum_{i=1}^n (V_{esi} C_{ei}) / (L 10^6)$$

where:

- |           |   |   |
|-----------|---|---|
| E         | = | Emission rate of total organic compounds, mg/liter of gasoline loaded.                                |
| $V_{esi}$ | = | Volume of air-vapor mixture exhausted at each interval "i", scm.                                      |
| $C_{ei}$  | = | Concentration of total organic compounds at each interval "i", ppm.                                   |
| L         | = | Total volume of gasoline loaded, liters.  |
| n         | = | Number of testing intervals.  |
| i         | = | Emission testing interval of 5 minutes.   |
| K         | = | Density of calibration gas, $1.83 \times 10^6$ for propane and $2.41 \times 10^6$ for butane, mg/scm. |

- 4) The performance test shall be conducted in intervals of 5 minutes. For each interval "i", readings from each measurement shall be recorded, and the volume exhausted ( $V_{esi}$ ) and the corresponding average total organic compounds concentration ( $C_{ei}$ ) shall be determined. The sampling system response time shall be considered in determining the average total organic compounds concentration corresponding to the volume exhausted. [40 CFR 60.503(c)(4)]
- 5) The following methods shall be used to determine the volume ( $V_{esi}$ ) air-vapor mixture exhausted at each interval: [40 CFR 60.503(c)(5)]

- a) Method 2B shall be used for combustion vapor processing systems. [40 CFR 60.503(c)(5)(i)]
- b) Method 2A shall be used for all other vapor processing systems. [40 CFR 60.503(c)(5)(ii)]
- 6) Method 25A or 25B shall be used for determining the total organic compounds concentration (C<sub>ei</sub>) at each interval. The calibration gas shall be either propane or butane. The owner or operator may exclude the methane and ethane content in the exhaust vent by any method (e.g., Method 18) approved by the Administrator. [40 CFR 60.503(c)(6)]
- 7) To determine the volume (L) of gasoline dispensed during the performance test period at all loading racks whose vapor emissions are controlled by the processing system being tested, terminal records or readings from gasoline dispensing meters at each loading rack shall be used. [40CFR 60.503(c)(7)]
- iv. The owner or operator shall determine compliance with the standard in §60.502(h) as follows: [40 CFR 60.503(d)]
  - 1) A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable of measuring up to 500 mm of water gauge pressure with  $\pm 2.5$  mm of water precision, shall be calibrated and installed on the terminal's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline tank truck. [40 CFR 60.503(d)(1)]
  - 2) During the performance test, the pressure shall be recorded every 5 minutes while a gasoline truck is being loaded; the highest instantaneous pressure that occurs during each loading shall also be recorded. Every loading position must be tested at least once during the performance test. [40 CFR 60.503(d)(2)]
- v. The owner or operator shall submit a written compliance test plan that includes the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the compliance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the compliance test. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the compliance test.
- vi. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.



- vii. The owner or operator shall furnish the District with a written report of the results of the compliance test within 60 days following the actual date of the compliance test.

### **U3 Comments**

1. The John Zink portable vapor combustion units are open flare design and the Rane vapor combustion unit is an enclosed flare design.
2. The VOC emission standard for Bulk Gasoline Terminals subject to 40 CFR Part 60, Subpart XX is 35 mg VOC/liter of gasoline loaded, however, Marathon Petroleum Company, LLC requested an emission limit of 10 mg VOC/liter of gasoline loaded. Marathon Petroleum Company, LLC conducted stack testing on June 11, 1999 to determine the VOC emissions from the loading of gasoline into tanker trucks. A total of 41 trucks were loaded with 114,972 gallons of gasoline. The VOC emission rate was 1.10 mg VOC per liter of gasoline loaded.
3. The terminal is not subject to the control requirements of Subpart R pursuant to 63.420(a)(1) of Subpart R. The company has documented that the result of the equation in 63.420(a)(1) of Subpart R is less than 1 (See Statement of Basis). The company is required submit an annual report of the results of the Et value for this plant.
4. The potential uncontrolled hourly TAP emissions could exceed the ASL values. The potential controlled hourly emissions of benzene, ethylbenzene, naphthalene, toluene, 1,2,4-trimethylbenzene, and xylene are below the ASL values.

**Emission Unit U4:** One (1) Barge loading equipped with an enclosed flare (thermal oxidizer).

**U4 Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
1.05	Compliance with Emission Standards and Maintenance Requirements	1, 2, 3, 4, & 5
40 CFR 63 Subpart A	General Provisions	63.1 through 63.16
40 CFR 63 Subpart Y	Standards of Performance for Marine Vessel Tank Loading Operations	63.560, 63.561, 63.562 (a, b, & e), 63.563 (a, b, & e), 63.564 (a, b, c, d, & e), 63.565 (a, b, c, d, f, & g), 63.567 (a, b, d, e, f, g, h, i, j, & k)
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3, 4, & 5

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions	1 through 4
5.12	Standards of Performance for New or Modified Sources Emitting Toxic Air Pollutants	1 through 6
5.02	Adoption of National Emission Standards for Hazardous Air Pollutants	3.1, 3.22
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum	1 through 5

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
	Ambient Concentration of a Toxic Air Contaminant	
5.23	Categories of Toxic Air Contaminants	1 through 6

<b>U4 Equipment</b>			
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E2	One (1) Barge loading operation (2000)	1.05, 7.25, 40 CFR 63 Subpart Y	C2 (Flare)

**U4 Control Devices:**

<b>ID</b>	<b>Description</b>	<b>Performance Indicator</b>	<b>Stack ID</b>
C2	One (1) Zink flare	See Specific Conditions	S2

### U4 Specific Conditions

#### S1. **Standards** (Regulation 2.16, section 4.1.1)

##### a. **VOC**

- i. The emissions of VOC shall not exceed 11 milligrams per liter of gasoline loaded. (Regulation 2.16, section 4.1.1) (See Comment 1)
- ii. The owner or operator shall control the emissions from the barge loading operation with a vapor combustion unit (enclosed flare) during all periods of barge loading gasoline. (Regulation 2.16, section 4.1.1)
- iii. The owner or operator shall not allow or cause the *plant-wide* VOC emissions to exceed 5 tons per year for affected facilities subject to Regulation 7.25, unless Best Available Control Technology (BACT) level of control is used or modeling is performed and approved by the District. The District has determined based on the results of the stack testing (99.43% control efficiency) of the vapor combustion unit (flare), the flare meets BACT level of VOC control for the barge loading operation. (Regulation 7.25, sections 2.1 and 3.1)

##### b. **HAP**

- i. The owner or operator shall not allow or cause the *plant-wide* emissions of any individual HAP to equal or exceed 10 tons during any consecutive 12-month period and 1.0 tons during any calendar month.
- ii. The owner or operator shall not allow or cause the *plant-wide* emissions of all HAPs combined to equal or exceed 25 tons during any consecutive 12-month period and 2.50 tons during any calendar month.
- iii. The owner or operator shall not allow or cause the throughput of the following product types to exceed the limits during any consecutive 12-month period:

Limit (gal/12-month period)	Product
500,000,000	Gasoline
650,000,000	Gasoline and Fuel Oil Combined
30,000,000	Gas/Oil (MPC Catalytic Cycle Oil)

Limit (gal/12-month period)	Product
131,400,000	Ethanol

- iv. The owner or operator of a new source with emissions less than 10 and 25 tons and an existing or new source with emissions of 10 or 25 tons shall equip each terminal with a vapor collection system that is designed to collect HAP vapors displaced from marine tank vessels during marine tank vessel loading operations and to prevent HAP vapors collected at one loading berth from passing through another loading berth to the atmosphere, except for those commodities exempted under §63.560(d). [40 CFR 63.562(b)(1)(i)]
- v. *Ship-to-shore compatibility.* The owner or operator of a new source with emissions less than 10 and 25 tons and an existing or new source with emissions of 10 or 25 tons shall limit marine tank vessel loading operations to those vessels that are equipped with vapor collection equipment that is compatible with the terminal's vapor collection system, except for those commodities exempted under §63.560(d). [40 CFR 63.562(b)(1)(ii)]
- vi. *Vapor tightness of marine vessels.* The owner or operator of a new source with emissions less than 10 and 25 tons and an existing or new source with emissions of 10 or 25 tons shall limit marine tank vessel loading operations to those vessels that are vapor tight and to those vessels that are connected to the vapor collection system, except for those commodities exempted under §63.560(d). [40 CFR 63.562(b)(1)(iii)]
- vii. *MACT standards for new sources.* The owner or operator of a new source with emissions less than 10 and 25 tons or a new source with emissions of 10 or 25 tons, except offshore loading terminals and the VMT source, shall reduce HAP emissions from marine tank vessel loading operations by 98 weight-percent, as determined using methods in §63.565(d) and (l). [40 CFR 63.562(b)(3)]
- viii. *Maintenance allowance for loading berths.* The owner or operator of a source subject to paragraph (b)(2), (3) or (4), may apply for approval to the District for a maintenance allowance for loading berths based on a percent of annual throughput or annual marine tank vessel loading operation time for commodities not exempted in §63.560(d). The owner or operator shall maintain records for all maintenance performed on the air pollution control equipment. The District consider the following in approving the maintenance allowance: [40 CFR 63.562(b)(6)]

- 1) The owner or operator expects to be in violation of the emissions standards due to maintenance; [40 CFR 3.562(b)(6)(i)]
  - 2) Due to conditions beyond the reasonable control of the owner or operator, compliance with the emissions standards during maintenance would result in unreasonable economic hardship; [40 CFR 3.562(b)(6)(ii)]
  - 3) The economic hardship cannot be justified by the resulting air quality benefit; [40 CFR 3.562(b)(6)(iii)]
  - 4) The owner or operator has given due consideration to curtailing marine vessel loading operations during maintenance; [40 CFR 3.562(b)(6)(iv)]
  - 5) During the maintenance allowance, the owner or operator will endeavor to reduce emissions from other loading berths that are controlled as well as from the loading berth the owner or operator is seeking the maintenance allowance; and [40 CFR 3.562(b)(6)(v)]
  - 6) During the maintenance allowance, the owner or operator will monitor and report emissions from the loading berth to which the maintenance allowance applies. [40 CFR 3.562(b)(6)(vi)]
- ix. *Operation and maintenance requirements for air pollution control equipment and monitoring equipment for affected sources.* At all times, including periods of startup, shutdown, and malfunction, owners or operators of affected sources shall operate and maintain a source, including associated air pollution control equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the District which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 3.562(e)]
- 1) The District will determine compliance with design, equipment, work practice, or operational emission standards by evaluating an owner or operator's conformance with operation and maintenance requirements. [40 CFR 3.562(e)(i)]
  - 2) The owner or operator of an affected source shall develop and implement a written operation and maintenance plan that describes

in detail a program of corrective action for varying (i.e., exceeding baseline parameters) air pollution control equipment and monitoring equipment, based on monitoring requirements in §63.564, used to comply with these emissions standards. The plan shall also identify all routine or otherwise predictable continuous monitoring system (thermocouples, pressure transducers, continuous emissions monitors (CEMS), etc.) variances. [40 CFR 63.562(e)(ii)]

- a) The plan shall specify procedures (preventive maintenance) to be followed to ensure that pollution control equipment and monitoring equipment functions properly and variances of the control equipment and monitoring equipment are minimal. [40 CFR 63.562(e)(2)(ii)(A)]
- b) The plan shall identify all operating parameters to be monitored and recorded for the air pollution control device as indicators of proper operation and shall establish the frequency at which the parameters will be monitored (see §63.564). 40 CFR 63.562(e)(2)(ii)
- c) Owners or operators of affected sources shall incorporate a standardized inspection schedule for each component of the control device used to comply with the emissions standards in §63.562(b), (c), and (d). To satisfy the requirements of this paragraph, the owner or operator may use the inspection schedule recommended by the vendor of the control system or any other technical publication regarding the operation of the control system. [40 CFR 63.562(e)(2)(iii)]
- d) Owners or operators shall develop and implement a continuous monitoring system (CMS) quality control program. The owner or operator shall develop and submit to the District for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in §63.8(e) of subpart A of Part 63. Each quality control program shall include, at a minimum, a written protocol that describes procedures for initial and any subsequent calibration of the CMS; determination and adjustment of the calibration drift of the CMS; preventive maintenance of the CMS, including spare parts inventory; data recording, calculations, and reporting; and accuracy audit procedures, including sampling and analysis methods.

The owner or operation shall maintain records of the procedures that are part of the quality control program developed and implemented for CMS. [40 CFR 63.562(e)(3)]

- 3) Based on the results of the determination made under paragraph (e)(2), the District may require that an owner or operator of an affected source make changes to the operation and maintenance plan for that source. Revisions may be required if the plan: [40 CFR 63.562(e)(3)]
  - a) Does not address a variance of the air pollution control equipment or monitoring equipment that has occurred that increases emissions; [40 CFR 63.562(e)(3)(i)]
  - b) Fails to provide for operation during a variance of the air pollution control equipment or the monitoring equipment in a manner consistent with safety and good air pollution control practices; or [40 CFR 63.562(e)(3)(ii)]
  - c) Does not provide adequate procedures for correcting a variance of the air pollution control equipment or monitoring equipment as soon as reasonable. [40 CFR 63.562(e)(3)(iii)]
- 4) If the operation and maintenance plan fails to address or inadequately addresses a variance event at the time the plan was initially developed, the owner or operator shall revise the operation and maintenance plan within 45 working days after such an event occurs. The revised plan shall include procedures for operating and maintaining the air pollution control equipment or monitoring equipment during similar variance events and a program for corrective action for such events. [40 CFR 63.562(e)(4)]
- 5) The operation and maintenance plan shall be developed by the source's compliance date. The owner or operator shall keep the written operation and maintenance plan on record to be made available for inspection, upon request, by the District for the life of the source. In addition, if the operation and maintenance plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection upon request by the District for a period of 5 years after each revision to the plan. [40 CFR 63.562(e)(5)]



- 6) To satisfy the requirements of the operation and maintenance plan, the owner or operator may use the source's standard operating procedures (SOP) manual, an Occupational Safety and Health Administration (OSHA) plan, or other existing plans provided the alternative plans meet the requirements of this section and are made available for inspection when requested by the District. [40 CFR 63.562(e)(6)]

c. **TAC**

- i. The owner or operator shall not allow any TAC emissions to exceed environmentally acceptable levels whether specifically established by modeling or derived from default de minimis levels provided by the District. The owner or operator shall not increase the TAC content in a raw material or substitute any raw materials or additional TACs for those identified in the initial permit application for this process or equipment that would result in an increase in the quantity of a TAC without prior notification to, and approval by, the District. (Regulations 5.01, 5.21, 5.23) (See Comment 1)
- ii. The owner or operator shall not alter the stack heights or any other air dispersion modeling input parameters identified in the initial STAR Category 1 TAC Environmental Acceptability Demonstration without prior approval by the District. The potential emissions of benzene could exceed the de minimis threshold values; therefore Tier 4 air dispersion modeling was performed which resulted in a  $EAG_C$  or Risk of  $< 1.0$  for each individual process. (Regulation 5.01, 5.21, 5.23)
- iii. The owner or operator shall control the emissions from the barge loading operation with a vapor combustion unit (enclosed or open flare) during all periods of loading gasoline. Loading of gasoline is not allowed unless the emissions are being controlled by a flare.

d. **TAP**

Toxic Air Pollutant emissions from this facility are limited to the Adjusted Significance Level emission rates, unless modeling or a BACT analysis has been submitted to, and approved by, the District. Any raw material changes shall be submitted to the District for review and approval. (See Comment 2)

S2. **Monitoring** (Regulation 2.16, section 4.1.9.1)

a. **VOC**

- i. For purposes of demonstrating ongoing compliance with the annual *plant-wide* VOC emission limits specified in this permit, the owner or operator shall monitor and maintain records of the throughput (in gallons) of each product type loaded through the barge loading operation during each calendar month and consecutive 12-month period.
- ii. For the enclosed flare, the owner or operator shall install, calibrate, operate, and maintain a temperature monitor accurate to within  $\pm 5.6^{\circ}\text{C}$  ( $\pm 10^{\circ}\text{F}$ ) or within the baseline temperature, whichever is less stringent, to measure the temperature. The monitor shall be installed at the exhaust point of the combustion device but not within the combustion zone. The owner or operator shall verify the accuracy of the temperature monitor once each calendar year with a reference temperature monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent temperature measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be at the same location as that of the temperature monitor being tested.
- iii. The owner or operator shall comply with the monitoring requirements established in Marathon's Regulation 1.05 VOC Compliance Plan dated February 14, 1993 (Revised 2000) and subsequent updated 1.05 Compliance Plan dated February 14, 2006.

b. **HAP**

- i. *Vent stream by-pass requirements for the terminal's vapor collection system.*
  - 1) In accordance with §63.562(b)(1)(i), (c)(2)(i), and (d)(1)(i), each valve in the terminal's vapor collection system that would route displaced vapors to the atmosphere, either directly or indirectly, shall be secured closed during marine tank vessel loading operations either by using a car-seal or a lock-and-key type configuration, or the by-pass line from the valve shall be equipped with a flow indicator, except for those valves used for pressure/vacuum relief, analyzers, instrumentation devices, sampling, and venting for maintenance. Marine tank vessel loading operations shall not be performed with open by-pass lines. [40 CFR 63.563(a)(1)(i)]
  - 2) Repairs shall be made to valves, car-seals, or closure mechanisms no later than 15 days after a change in the position of the valve or a

break in the car-seal or closure mechanism is detected or no later than prior to the next marine tank vessel loading operation, whichever is later. [40 CFR 63.563(a)(1)(ii)]

- ii. *Ship-to-shore compatibility of vapor collection systems.* Following the date on which the initial performance test is completed, marine tank vessel loading operations must be performed only if the marine tank vessel's vapor collection equipment is compatible to the terminal's vapor collection system; marine tank vessel loading operations must be performed only when the marine tank vessel's vapor collection equipment is connected to the terminal's vapor collection system, as required in §63.562(b)(1)(ii), (c)(2)(ii), and (d)(1)(ii). [40 CFR 63.563(a)(2)]
- iii. *Pressure/vacuum settings for the marine tank vessel's vapor collection equipment.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator of an affected source shall demonstrate compliance with operating pressure requirements of 33 CFR 154.814 using the procedures in §63.565(b). [40 CFR 63.563(a)(3)]
- iv. *Vapor-tightness requirements of the marine vessel.* The owner or operator of an affected source shall use the procedures in paragraph (a)(4)(i), (ii), (iii), or (iv) of §63.563 to ensure that marine tank vessels are vapor tight, as required in §63.562(b)(1)(iii), (c)(2)(iii), and (d)(1)(iii). The Algonquin terminal typically uses the pressure test option in 40 CFR 63.563(a)(4)(i). [40 CFR 63.563(a)(4)]
  - 1) Pressure test documentation for determining vapor tightness of the marine vessel. The owner or operator of a marine tank vessel, who loads commodities containing HAP not determined to be exempt under §63.560(d) at an affected source, shall provide a copy of the vapor-tightness pressure test documentation described in §63.567(i) for each marine tank vessel prior to loading. The date of the test listed in the documentation must be within the preceding 12 months, and the test must be conducted in accordance with the procedures in §63.565(c)(1). Following the date on which the initial performance test is completed, the affected source must check vapor-tightness pressure test documentation for marine tank vessels loaded at positive pressure. [40 CFR 63.563(a)(4)(i)]
  - 2) *Leak test documentation for determining vapor tightness of the marine vessel.* If no documentation of the vapor tightness pressure test as described in paragraph (a)(4)(i) of §63.563 is available, the owner or operator of a marine tank vessel, who loads commodities

containing HAP not determined to be exempt under §63.560(d) at an affected source, shall provide the leak test documentation described in §63.567(i) for each marine tank vessel prior to loading. The date of the test listed in the documentation must be within the preceding 12 months, and the test must be conducted in accordance with the procedures in §63.565(c)(2). If the marine tank vessel has failed its most recent vapor-tightness leak test at that terminal, the owner or operator of the non-vapor-tight marine tank vessel shall provide documentation that the leaks detected during the previous vapor-tightness test have been repaired and documented with a successful vapor-tightness leak test described in §63.565(c)(2) conducted during loading. If the owner or operator of the marine tank vessel can document that repair is technically infeasible without cleaning and gas freeing or dry-docking the vessel, the owner or operator of the affected source may load the marine tank vessel. Following the date on which the initial performance test is completed, an affected source must check the vapor-tightness leak test documentation for marine tank vessels loaded at positive pressure. [40 CFR 63.563(a)(4)(ii)]

- 3) *Leak test performed during loading using Method 21 for determining vapor tightness of the marine vessel.* If no documentation of vapor tightness as described in paragraphs (a)(4)(i) or (ii) of 63.563 is available, the owner or operator of a marine tank vessel, who loads commodities containing HAP not determined to be exempt under §63.560(d) at an affected source, shall perform a leak test of the marine tank vessel during marine tank vessel loading operation using the procedures described in §63.565(c)(2). [40CFR 63.563(a)(4)(iii)]
  - a) If no leak is detected, the owner or operator of a marine tank vessel shall complete the documentation described in §63.567(i) prior to departure of the vessel. 40 CFR 63.563(a)(4)(iii)(A)
  - b) If a leak is detected, the owner or operator of the marine tank vessel shall document the vapor-tightness failure for the marine tank vessel prior to departure of the vessel. The leaking component shall be repaired prior to the next marine tank vessel loading operation at a controlled terminal unless the repair is technically infeasible without cleaning and gas freeing or dry-docking the vessel. If the owner or operator of the vessel provides documentation that repair of such

equipment is technically infeasible without cleaning and gas freeing or dry-docking the vessel, the equipment responsible for the leak will be excluded from future Method 21 tests until repairs are effected. A copy of this documentation shall be maintained by the owner or operator of the affected source. Repair of the equipment responsible for the leak shall occur the next time the vessel is cleaned and gas freed or dry-docked. For repairs that are technically feasible without dry-docking the vessel, the owner or operator of the affected source shall not load the vessel again unless the marine tank vessel owner or operator can document that the equipment responsible for the leak has been repaired. [40 CFR 63.563(a)(4)(iii)(B)]

- v. *Operation and maintenance inspections.* If the 3-hour or 3-cycle block average operating parameters in paragraphs (b)(4) through (9) of §63.563, outside the acceptable operating ranges, are measured and recorded, i.e., variances of the pollution control device or monitoring equipment, the owner or operator of the affected source shall perform an unscheduled inspection of the control device and monitoring equipment and review of the parameter monitoring data. The owner or operator of the affected source shall perform an inspection and review when total parameter variance time for the control device is greater than 10 percent of the operating time for marine tank vessel loading operations on a 30-day, rolling-average basis. The inspection and review shall be conducted within 24 hours after passing the allowable variance time of 10 percent. The inspection checklist from the requirements of §63.562(e)(2)(iii) and the monitoring data from requirements in §63.562(e)(2)(ii) and 63.564 should be used to identify any maintenance problems that may be associated with the variance. The unscheduled inspection should encompass all components of the control device and monitoring equipment that can be inspected while in operation. If any maintenance problem is identified during the inspection, the owner or operator of the affected source must take corrective action (e.g., adjustments to operating controls, etc.) as soon as practicable. If no immediate maintenance problems are identified from the inspection performed while the equipment is operating, a complete inspection in accordance with §63.562(e)(2) must be conducted prior to the next marine tank vessel loading operation and corrective action (e.g., replacement of defective parts) must be taken as soon as practicable for any maintenance problem identified during the complete inspection. [40 CFR 63.563(b)(3) ]
- vi. *Combustion device, except flare.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall

determine the efficiency of and/or the outlet VOC concentration from the combustion device used to comply with §63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2) using the test methods in §63.565(d). The owner or operator shall comply with paragraph (b)(4)(i) or (ii) of 63.563. The owner or operator has selected the following compliance option: [40 CFR 63.563(b)(4)]

- 1) Baseline temperature for required percent combustion efficiency. The owner or operator shall establish as an operating parameter the baseline temperature using the procedures described in §63.565(f). Following the date on which the initial performance test is completed, the facility shall be operated with the block average temperature as determined in §63.564(e)(2) or (3) no more than 28°C (50°F) below the baseline temperature. [40 CFR 63.563(b)(4)(ii)]
- vii. *Emission estimation.* The owner or operator of a source subject to §63.562(b)(2), (3), and (4) shall use the emission estimation procedures in §63.565(l) to calculate HAP emissions. [40 CFR 63.(b)(10)]
- viii. *Leak detection and repair for vapor collection systems and control devices.* The following procedures are required for all sources subject to §63.562(b), (c), or (d). [40 CFR 63.563(c)]
- 1) Annual leak detection and repair for vapor collection systems and control devices. The owner or operator of an affected source shall inspect and monitor all ductwork and piping and connections to vapor collection systems and control devices once each calendar year using Method 21. [40 CFR 63.563(c)(1)]
  - 2) Ongoing leak detection and repair for vapor collection systems and control devices. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method, all ductwork and piping and connections to vapor collection systems and control devices shall be inspected to the extent necessary to positively identify the potential leak and any potential leaks shall be monitored within 5 days by Method 21. Each detection of a leak shall be recorded, and the leak shall be tagged until repaired. [40 CFR 63.563(c)(2)]
  - 3) When a leak is detected, a first effort to repair the vapor collection system and control device shall be made within 15 days or prior to

the next marine tank vessel loading operation, whichever is later.  
[40 CFR 63.563(c)(3)]

- ix. The owner or operator of an affected source shall comply with the monitoring requirements in §63.8 in accordance with the provisions for applicability of subpart A to Part 63 in Table 1 of §63.560 and the monitoring requirements in §63.564. [40 CFR 63.564(a)(1)]
  - 1) Each owner or operator of an affected source shall monitor the parameters specified in §63.564. All monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the source are obtained. For monitoring equipment purchased from a vendor, verification of the operational status of the monitoring equipment shall include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system. [40 CFR 63.564(a)(2)]
  - 2) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all continuous parametric monitoring systems (CPMS) and CEMS shall be in continuous operation while marine tank vessel loading operations are occurring and shall meet minimum frequency of operation requirements. Sources monitoring by use of CEMS and CPMS shall complete a minimum of one cycle of operation (sampling, analyzing, and/or data recording) for each successive 15-minute period. [40 CFR 63.564(a)(3)]
- x. *Vapor collection system of terminal.* Owners or operators of a source complying with §63.563(a)(1) that uses a vapor collection system that contains valves that could divert a vent stream from a control device used to comply with the provisions of this subpart shall comply with paragraph (b)(1), (2), or (3) of 63.564. There is no bypass line in place in the vapor collection system at the Marathon Petroleum Company barge loading operation. [40 CFR 63.564(b)]
  - 1) Measure and record the vent stream flowrate of each by-pass line once every 15 minutes. The owner or operator shall install, calibrate, maintain, and operate a flow indicator and data recorder. The flow indicator shall be installed immediately downstream of any valve (i.e., entrance to by-pass line) that could divert the vent

stream from the control device to the atmosphere. [40 CFR 63.564(b)(1)]

- 2) Measure the vent stream flowrate of each by-pass line once every 15 minutes. The owner or operator shall install, calibrate, maintain, and operate a flow indicator with either an audio or visual alarm. The flow indicator and alarm shall be installed immediately downstream of any valve (i.e., entrance to by-pass line) that could divert the vent stream from the control device to the atmosphere. The alarm shall be checked every 6 months to demonstrate that it is functioning properly. [40 CFR 63.564(b)(2)]
  - 3) Visually inspect the seal or closure mechanism once during each marine tank vessel loading operation and at least once every month to ensure that the valve is maintained in the closed position and that the vent stream is not diverted through the by-pass line; record all times when the car seals have been broken and the valve position has been changed. Each by-pass line valve shall be secured in the closed position with a car-seal or a lock-and-key type configuration. [40 CFR 63.564(b)(3)]
- xi. *Pressure/vacuum settings for the marine tank vessel's vapor collection equipment.* Owners or operators of a source complying with §63.563(a)(3) shall measure continuously the operating pressure of the marine tank vessel during loading. [40 CFR 63.564(c)]
- xii. *Combustion devices, except flare.* For sources complying with §63.563(b)(4), use of a combustion device except a flare, the owner or operator shall comply with paragraph (e)(1), (2), or (3) of 63.564. Owners or operators complying with paragraphs (e)(2) or (3) shall also comply with paragraph (e)(4) of this 63.564. [40 CFR 63.564(e)]
- 1) *Operating temperature determined during performance testing.* If the baseline temperature was established during the performance test, the data acquisition system shall record the temperature every 15 minutes and shall compute and record an average temperature each cycle (same time period or cycle of the performance test) and a 3- cycle block average every third cycle. [40cfr63.564(e)(3)]
  - 2) *Manufacturer's recommended operating temperature.* If the baseline temperature is based on the manufacturer recommended operating temperature, the data acquisition system shall record the temperature every 15 minutes and shall compute and record an



average temperature each hour and a 3-hour block average every third hour. [40cfr63.564(e)(4)]

- 3) *Temperature monitor.* The owner or operator shall install, calibrate, operate, and maintain a temperature monitor accurate to within  $\pm 5.6^{\circ}\text{C}$  ( $\pm 10^{\circ}\text{F}$ ) or within 1 percent of the baseline temperature, whichever is less stringent, to measure the temperature. The monitor shall be installed at the exhaust point of the combustion device but not within the combustion zone. The owner or operator shall verify the accuracy of the temperature monitor once each calendar year with a reference temperature monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent temperature measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be at the same location as that of the temperature monitor being tested. [40 CFR 63.564(e)(4)]

- xiii. The owner or operator shall monitor and maintain records of the quantity (in gallons) of each HAP containing material loaded through the barge loading operation during each calendar month and consecutive 12-month period.

c. **TAC**

- i. The owner or operator shall monitor and maintain records of the quantity (in gallons) of each TAC containing material loaded through the barge loading operation.
- ii. See Specific Condition S2.a. for additional compliance monitoring requirements.

d. **TAP**

See Specific Condition S2.a. for compliance monitoring requirements.

S3. **Record Keeping** (Regulation 2.16, section 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

- i. The owner or operator shall maintain daily records that show the quantity (in gallons) of each product type loaded through the barge loading operation.
- ii. The owner or operator shall maintain daily records that identify all periods of bypassing the enclosed flare while the barge loading operation is in operation loading gasoline or a declaration entered into the records that the enclosed flare operated at all times the barge was loading gasoline for a given day. The records shall include the date, duration (including start and stop time) of each bypass event, identification of the control device and process equipment in operation, the total lb/hr VOC emissions during each bypass event, summary information on the cause or reason for each control device bypass event, corrective action taken to minimize the extent and duration of each bypass event, and measures implemented to prevent reoccurrence of the situation that resulted in bypassing the flare.

b. **HAP**

- i. The owner or operator shall maintain daily records that show the quantity (in gallons) of each HAP containing product loaded through the barge loading operation.
- ii. The owner or operator shall maintain monthly records, including calculations, that show the *plant-wide* emissions of each individual HAP and the *plant-wide* total combined HAPs during each calendar month and consecutive 12-month period.
- iii. The owner or operator shall maintain daily records that identify all periods of bypassing the flare while the barge loading operation is in operation loading gasoline or a declaration entered into the records that the flare operated at all times the barge was loading gasoline for a given day. The records shall include the date, duration (including start and stop time) of each bypass event, identification of the control device and process equipment in operation, the total lb/hr emissions of each individual HAP during each bypass event, summary information on the cause or reason for each control device bypass event, corrective action taken to minimize the extent and duration of each bypass event, and measures implemented to prevent reoccurrence of the situation that resulted in bypassing the flare.
- iv. The owner or operator shall fulfill all record keeping requirements in 40 CFR Part 63 Subpart A in accordance with the provisions for applicability of subpart A to this Subpart Y in Table 1 of §63.560.

- v. If a vent system, or vapor collection system, containing valves that could divert the emission stream away from the control device is used, each owner or operator of an affected source shall keep for at least 5 years up-to-date, readily accessible continuous records of: [40 CFR 63.567(g)]
- 1) All periods when flow bypassing the control device is indicated if flow indicators are installed under §63.563(a)(1) and §63.564(b), and [40 CFR 63.567(g)(1)]
  - 2) All times when maintenance is performed on car-sealed valves, when the car- seal is broken, and when the valve position is changed (i.e., from open to closed for valves in the vent piping to the control device and from closed to open for valves that vent the stream directly or indirectly to the atmosphere bypassing the control device) if valves are monitored under §63.564(b). [40 CFR 63.567(g)(2)]
- Note: There is no bypass line in place at the Marathon Petroleum Company barge loading vapor collection system. If there is an upset or malfunction the loading and control device automatically shutdown.
- vi. The owner or operator of an affected source shall keep the vapor-tightness documentation required under §63.563(a)(4) on file at the source in a permanent form available for inspection. [40 CFR 63.567(h)]
- vii. *Vapor tightness test documentation for marine tank vessels.* The owner or operator of an affected source shall maintain a documentation file for each marine tank vessel loaded at that source to reflect current test results as determined by the appropriate method in §63.565(c)(1) and (2). Updates to this documentation file shall be made at least once per year. The owner or operator shall include, as a minimum, the following information in this documentation: [40 CFR 63.567(i)]
- 1) Test title;
  - 2) Marine vessel owner and address;
  - 3) Marine vessel identification number;
  - 4) Loading time, according to §63.563(a)(4)(ii) or (iii), if appropriate;
  - 5) Testing location;
  - 6) Date of test;
  - 7) Tester name and signature;
  - 8) Test results from §63.565(c)(1) or (2), as appropriate;

- 9) Documentation provided under §63.563(a)(4)(ii) and (iii)(B) showing that the repair of leaking components attributed to a failure of a vapor-tightness test is technically infeasible without dry-docking the vessel; and
  - 10) Documentation that a marine tank vessel failing a pressure test or leak test has been repaired.
- viii. *Emission estimation reporting and record keeping procedures.* The owner or operator of each source complying with the emission limits specified in §63.562(b)(2), (3), and (4) shall comply with the following provisions: [40 CFR 63.567(j)]
- 1) Maintain records of all measurements, calculations, and other documentation used to identify commodities exempted under §63.560(d); [40 CFR 63.567(j)(1)]
  - 2) Keep readily accessible records of the emission estimation calculations performed in §63.565(l) for 5 years; and [40 CFR 63.567(j)(2)]
- ix. Owners or operators of marine tank vessel loading operations specified in §63.560(a)(3) shall retain records of the emissions estimates determined in §63.565(l) and records of their actual throughputs by commodity, for 5 years. [40 CFR 63.567(j)(4)]
- x. *Leak detection and repair of vapor collection systems and control devices.* When each leak of the vapor collection system, or vapor collection system, and control device is detected and repaired as specified in §63.563(c) the following information required shall be maintained for 5 years: [40 CFR 63.567(k)]
- 1) Date of inspection;
  - 2) Findings (location, nature, and severity of each leak);
  - 3) Leak determination method;
  - 4) Corrective action (date each leak repaired, reasons for repair interval); and
  - 5) Inspector name and signature.
- c. **TAC**
- i. The owner or operator shall maintain daily records of the quantity (in gallons) of each TAC containing material loaded through the barge loading operation.

- ii. The owner or operator shall maintain a copy onsite of the Marathon Petroleum Company's STAR Category 1 TAC Environmental Acceptability Determination dated December 19, 2006 and subsequent information provided to the District including all air dispersion modeling input parameters and the resulting associated EAG<sub>C</sub> or Risk, in units of risk in one million for benzene.
- iii. The owner or operator shall maintain records that identify all periods when the flare was offline during periods of loading gasoline. The records shall include the date, duration of time (including the start and stop time) that the emissions were not being controlled by a flare when loading gasoline.
- iv. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each TAC containing material used at this plant.

d. **TAP**

See Specific Condition S3.a. for record keeping requirements.

S4. **Reporting** (Regulation 2.16, section 4.1.9.3)

a. **VOC**

- i. The total *plant-wide* calendar month VOC emissions for each month in the reporting period;
- ii. The total *plant-wide* consecutive 12-month VOC emissions for each month in the reporting period;
- iii. Any deviation from a permit term or condition including the quantity of excess VOC emissions;
- iv. Identification of all periods of barge loading gasoline when the enclosed flare was offline or not in operation. The compliance report shall include the date, duration (including the start and stop time) for each bypass event, the cause or reason the enclosed flare was not in operation when loading gasoline, the emissions of VOC during each bypass event during the reporting period, corrective action taken to minimize the extent and duration of the bypass event, and measures implemented to prevent reoccurrence of the situation that resulted in bypassing the enclosed flare;
- v. The total monthly gallons of each product type (e.g. gasoline, fuel oil, ethanol, and Gas Oil) loaded during each calendar month in the reporting period; and
- vi. The total consecutive 12-month gallons of each product type (e.g. gasoline, fuel oil, ethanol, and Gas Oil) loaded for each month in the reporting period.

**b. HAP**

- i. The total *plant-wide* calendar month emissions of each individual HAP for each month in the reporting period;
- ii. The total *plant-wide* consecutive 12-month emissions of each individual HAP for each month in the reporting period;
- iii. The total *plant-wide* consecutive 12-month emissions of all HAPs combined for each month in the reporting period;
- iv. Any deviation from a permit term or condition including the quantity of excess HAP emissions. If there are no periods of excess HAP emissions during a reporting period, the owner or operator shall submit a negative declaration;
- v. Identification of all periods of barge loading gasoline when the enclosed flare was offline or not in operation. The compliance report shall include the date, duration (including the start and stop time) for each bypass event, the cause or reason the enclosed flare was not in operation when loading gasoline, the emissions of each individual HAP during each bypass event during the reporting period, corrective action taken to minimize the extent and duration of the bypass event, and measures implemented to prevent reoccurrence of the situation that resulted in bypassing the enclosed flare.
- vi. Submit an annual report of the source's HAP control efficiency calculated using the procedures specified in §63.565(l), based on the source's actual throughput. [40 CFR 63.567(j)(4)]
- vii. The owner or operator shall fulfill all reporting and record keeping requirements in §§63.9 and 63.10 of 40 CFR Part 63, Subpart A in accordance with the provisions for applicability of Subpart A of Subpart Y in Table 1 of §63.560 and fulfill all reporting and record keeping requirements in 63.657. These reports will be made to the District;
- viii. The owner or operator of an affected source shall fulfill all notification requirements in §63.9 of subpart A of this part in accordance with the provisions for applicability of that section to this subpart in Table 1 of §63.560 and the notification requirements in this paragraph;
- ix. Summary reports and excess emissions and monitoring system performance reports. [40 CFR 63.567(e)(1)]
- x. Schedule for summary report and excess emissions and monitoring system performance reports. Excess emissions and parameter monitoring exceedances are defined in §63.563(b). The owner or operator of a source subject to these emissions standards that is required to install a CMS shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the District once each year, except, when the source experiences excess emissions, the source shall comply with a semi-annual reporting format until a request to reduce reporting frequency under paragraph (e)(2) of this section is approved. [40 CFR 63.567(e)(2)]

- xi. Request to reduce frequency of excess emissions and continuous monitoring system performance reports. An owner or operator who is required to submit excess emissions and continuous monitoring system performance and summary reports on a semi-annual basis may reduce the frequency of reporting to annual if the following conditions are met:
  - 1) For 1 full year the source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance; and [40 CFR 63.567(e)(2)(ii)]
  - 2) The owner or operator continues to comply with all record keeping and monitoring requirements specified in this subpart and subpart A of this part. [40 CFR 63.567(e)(3)]
- xii. The frequency of reporting of excess emissions and continuous monitoring system performance and summary reports required may be reduced only after the owner or operator notifies the District in writing of his or her intention to make such a change and the District does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the District may review information concerning the source's entire previous performance history during the 5- year record keeping prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation maintenance requirements. Such information may be used by the District to make a judgement about the source's potential for noncompliance in the future. If the District will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the District to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted. [40 CFR 63.567(e)(4)]
- xiii. Content and submittal dates for excess emissions and monitoring system performance reports. All excess emissions and monitoring system performance reports and all summary reports, if required per paragraph (e)(5) and (6) of this section, shall be delivered or postmarked within 30 days following the end of each calendar year, or within 30 days following the end of each six month period, if appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all information required in §63.10(c)(5) through (13) of subpart A of this part as applicable in Table 1 of §63.560 and information from any calibration tests in which the monitoring equipment is not in compliance with PS 8 or other methods used for accuracy testing of temperature, pressure, or flow monitoring devices. The written report shall also include

the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances have occurred or monitoring equipment has not been inoperative, repaired, or adjusted, such information shall be stated in the report. This information will be kept for a minimum of 5 years and made readily available to the District or delegated State authority upon request. [40 CFR 63.567(e)(5)]

- xiv. If the total duration of excess emissions or control system parameter exceedances for the reporting period is less than 5 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 10 percent of the total operating time for the reporting period, only the summary report of §63.10(e)(3)(vi) of subpart A of this part shall be submitted, and the full excess emissions and continuous monitoring system performance report of paragraph (e)(4) of this section need not be submitted unless required by the District. [40 CFR 63.567(e)(6)]
- xv. If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 5 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 10 percent or greater of the total operating time for the reporting period, both the summary report of §63.10(e)(3)(vi) of subpart A of this part and the excess emissions and continuous monitoring system performance report of paragraph (e)(4) of this section shall be submitted. [40 CFR 63.567(f)]
- xvi. Vapor collection system of the terminal. Each owner or operator of an affected source shall submit with the initial performance test and maintain in an accessible location on site an engineering report describing in detail the vent system, or vapor collection system, used to vent each vent stream to a control device. This report shall include all valves and vent pipes that could vent the stream to the atmosphere, thereby bypassing the control device, and identify which valves are car-sealed opened and which valves are car-sealed closed.

c. **TAC**

- i. Identification of all periods of barge loading gasoline when the enclosed flare was being bypassed or not in operation. The compliance report shall include the date, duration (including the start and stop time) for each bypass event, the cause or reason the enclosed flare was not in operation when loading gasoline, the emissions of each individual TAC during each bypass



event during the reporting period, corrective action taken to minimize the extent and duration of the bypass event, and measures implemented to prevent reoccurrence of the situation that resulted in bypassing the enclosed flare; and

- ii. The owner or operator shall submit notification to, and receive approval by, the District for any raw material change that increases the TAC content or introduces new TACs in this process equipment not identified in the permit application.
- iii. Any change in the air dispersion modeling input parameters identified in the September 19, 2006 STAR Category 1 TAC EA Demonstration.

d. **TAP**

See Specific Condition S4.a.

S5. **Testing** (Regulation 2.16, section 4.1.9.1.2)

**VOC/HAP**

- i. The owner or operator shall conduct compliance testing within 5 years after the effective date of this permit. The owner or operator of an affected source in §63.562 shall comply with the performance testing requirements in §63.7 of Subpart A of Part 63 in accordance with the provisions for applicability of Subpart A to this subpart in Table 1 of §63.560 and the performance testing requirements in this section.
- ii. *Pressure/vacuum settings of marine tank vessel's vapor collection equipment.* For the purpose of determining compliance with §63.563(a)(3), the following procedures shall be used: [40 CFR 63.565(b)(1)]
  - 1) Calibrate and install a pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument) capable of measuring up to the maximum relief set pressure of the pressure-vacuum vents; 40cfr63.565(b)(2)
  - 2) Connect the pressure measurement device to a pressure tap in the terminal's vapor collection system, located as close as possible to the connection with the marine tank vessel; and
  - 3) During the performance test required in §63.563(b)(1), record the pressure every 5 minutes while a marine tank vessel is being loaded and record the

highest instantaneous pressure and vacuum that occurs during each loading cycle.

- iii. *Vapor-tightness test procedures for the marine tank vessel.* When testing a vessel for vapor tightness to comply with the marine vessel vapor-tightness requirements of §63.563(a)(4)(i), the owner or operator of a source shall use the methods in either Specific Condition S5.iii.1) or S5.iii.2). [40 CFR 63.565(c)]

1) Pressure test for the marine tank vessel. [40 CFR 63.565(c)(1)]

- a) Each product tank shall be pressurized with dry air or inert gas to no more than the pressure of the lowest pressure relief valve setting.
- b) Once the pressure is obtained, the dry air or inert gas source shall be shut off.
- c) At the end of one-half hour, the pressure in the product tank and piping shall be measured. The change in pressure shall be calculated using the following formula:

$$P = P_i - P_f$$

Where:

P = Change in pressure, inches water

$P_i$  = Pressure in tank when air/gas source is shut off, inches of water.

$P_f$  = Pressure in tank at the end of one-half hour after air/gas source is shut off, inches of water

The change in pressure, P, shall be compared to the pressure drop calculated using the following formula:

$$PM = 0.861 P_{ia} L / V$$

Where:

PM = maximum allowable pressure change, inches of water.

$P_{ia}$  = pressure in tank when air/gas source is shut off, psia.

L = maximum permitted loading rate of vessel, barrels per hour.

V = total volume of product tank, barrels.

If  $P < PM$ , the vessel is vapor tight.

If  $P > PM$ , the vessel is not vapor tight and the source of the leak must be identified and repaired prior to retesting.

- 2) *Leak test for the marine tank vessel.* Each owner or operator of a source complying with §§63.563(a)(4)(ii) or (iii) shall use Method 21 as the vapor-tightness leak test for marine tank vessels. The test shall be conducted during the final 20 percent of loading of each product tank of the marine vessel, and it shall be applied to any potential sources of vapor leaks on the vessel.
- iv. *Combustion (except flare) and recovery control device performance test procedures.*
  - 1) All testing equipment shall be prepared and installed as specified in the appropriate test methods.
  - 2) All testing shall be performed during the last 20 percent of loading of a tank or compartment.
  - 3) All emission testing intervals shall consist of each 5 minute period during the performance test. For each interval, the following shall be performed:
    - a) Readings. The reading from each measurement instrument shall be recorded.
    - b) Sampling Sites. Method 1 or 1A of appendix A of part 60 of this chapter, as appropriate, shall be used for selection of sampling sites. Sampling sites shall be located at the inlet and outlet of the combustion device or recovery device except for owners or operators complying with the 1,000 ppmv VOC emissions limit for gasoline vapors under §63.563(b)(6) or (7), where the sampling site shall be located at the outlet of the recovery device.
    - c) Volume exhausted. The volume exhausted shall be determined using Method 2, 2A, 2C, or 2D of appendix A of part 60 of this chapter, as appropriate.
- v. *Combustion devices, except flares.* The average VOC concentration in the vent upstream and downstream of the control device shall be determined using Method 25 of appendix A of part 60 of this chapter for combustion devices, except flares. The average VOC concentration shall correspond to the volume measurement by taking into account the sampling system response time.
- vi. The VOC mass at the inlet and outlet of the combustion device during each testing interval shall be calculated as follows:

$$M_j = FKVsC_{VOC}$$

Where:

- $M_j$  = mass of VOC at the inlet and outlet of the combustion or recovery device during testing interval j, kilograms (kg).
- $F$  = conversion factor, (cubic meters VOC/cubic meters air)(1/ppmv) ( $m^3$  VOC/ $m^3$  air)(1/ppmv).
- $K$  = density, kilograms per cubic meter ( $kg/m^3$  VOC), standard conditions, 20°C and 760 mm Hg.
- $V_s$  = volume of air-vapor mixture at the inlet and outlet of the combustion or recovery device, cubic meters ( $m^3$ ) at standard conditions, 20°C and 760 mm Hg.
- $C_{VOC}$  = VOC concentration (as measured) at the inlet and outlet of the combustion or recovery device, ppmv, dry basis.
- $s$  = standard conditions, 20°C and 760 mm Hg.

- vii. The VOC mass emission rates at the inlet and outlet of the combustion device shall be calculated in accordance with 63.567(d)(7).
- viii. Where Method 25 or 25A is used to measure the percent reduction in VOC, the percent reduction across the combustion or recovery device shall be calculated in accordance with 63.567(d)(8).
- ix. The owner or operator shall repeat the procedures in paragraph (d)(1) through (d)(8) of 63.567 3 times. The arithmetic average percent efficiency of the three runs shall determine the overall efficiency of the control device.
- x. Use of methods other than Method 25 or Method 25A shall be validated pursuant to Method 301 of Appendix A of Part 63.
- xi. *Baseline temperature.* The procedures in this paragraph shall be used to determine the baseline temperature required in §63.563(b)(4), (6), and (7) for combustion devices, carbon adsorber beds, and condenser/refrigeration units, respectively, and to monitor the temperature as required in §63.564(e), (g), and (h). The owner or operator shall comply with either Specific Condition S5.xi.1) or S5.xi.2) as follows:
  - 1) Baseline temperature from performance testing. The owner or operator shall establish the baseline temperature as the temperature at the outlet point of the unit averaged over three test runs from paragraph (d) of this section. Temperature shall be measured every 15 minutes.

- 2) Baseline temperature from manufacturer. The owner or operator shall establish the baseline temperature as the manufacturer recommended minimum operating temperature for combustion devices, maximum operating temperature for condenser units, and maximum operating temperature for carbon beds of carbon adsorbers.
- xii. *Baseline outlet VOC concentration.* The procedures in this paragraph shall be used to determine the outlet VOC concentration required in §63.563(b)(4), (6), (7), and (8) for combustion devices except flare, carbon adsorbers, condenser/refrigeration units, and absorbers, respectively, and to monitor the VOC concentration as required in §63.564(e), (g), (h), and (i). The owner or operator shall use the procedures outlined in Method 25A. For the baseline VOC concentration, the arithmetic average of the outlet VOC concentration from three test runs from paragraph (d) of this section shall be calculated for the control device. The VOC concentration shall be measured at least every 15 minutes.
  - xiii. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified, the owner or operator shall refrain from conducting the performance test until the District approves the use of the alternative method when the District approves the site-specific test plan (if review of the site-specific test plan is requested) or until after the alternative method is approved (see §63.7(f) of subpart A of this part). If the District does not approve the site-specific test plan (if review is requested) or the use of the alternative method within 30 days before the test is scheduled to begin, the performance test dates specified in §63.563(b)(1) shall be extended such that the owner or operator shall conduct the performance test within 60 calendar days after the District approves the site-specific test plan or after use of the alternative method is approved. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the District's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.
  - xiv. The owner or operator shall submit a written compliance test plan that includes the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the compliance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the compliance test. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the compliance test.
  - xv. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.

- xvi. The owner or operator shall furnish the District with a written report of the results of the compliance test within 60 days following the actual date of the compliance test.

#### **U4 Comments**

1. A compliance test was performed on May 4, 2000 for the barge loading operation which demonstrated compliance with 40 CFR Part 63, Subpart Y. The stack test indicated a 10.87 mg VOC/liter emission rate (30.3 ppm avg outlet concentration). The average stack temperature was 1,716°F. The control efficiency of the enclosed flare was 99.43% based on an average of three runs. The company requested a limit of 11 mg/l of gasoline loaded in their FEDOOP permit application submitted to the District.
2. The potential uncontrolled hourly TAP emissions could exceed the ASL values. The potential controlled hourly emissions of benzene, ethylbenzene, naphthalene, toluene, 1,2,4-trimethylbenzene, and xylene are below the ASL values.

**Emission Unit U5:** One (1) Railcar unloading operation for transferring ethanol to storage tanks.

**U5 Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
1.05	Compliance with Emission Standards and Maintenance Requirements	1, 2, 3, 4, & 5
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3, 4, & 5

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
N/A	N/A	N/A

<b>U5 Equipment</b>			
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E3	One (1) Railcar unloading operation (2007)	7.25	N/A

**U5 Control Devices:** There are no control devices associated with Emission Unit U5.

### **U5 Specific Conditions**

**S1. Standards** (Regulation 2.16, section 4.1.1)

**VOC**

- i. The owner or operator shall not allow or cause the *plant-wide* VOC emissions to exceed 5 tons per year for affected facilities subject to Regulation 7.25, unless Best Available Control Technology level of control is used or modeling is performed and approved by the District. (Regulation 7.25, sections 2.1 and 3.1)
- ii. The owner or operator shall not allow or cause the throughput of ethanol to exceed 131,400,000 gallons per year. This annual throughput limit includes the throughput of ethanol from Emission Unit U4.

**S2. Monitoring** (Regulation 2.16, section 4.1.9.1)

**VOC**

- i. The owner or operator shall monitor and maintain records of the throughput (in gallons) of ethanol during each calendar month and consecutive 12-month period..
- ii. The owner or operator shall comply with the monitoring requirements established in Marathon's Regulation 1.05 VOC Compliance Plan dated February 14, 1993 (Revised 2000) and subsequent updated 1.05 Compliance Plan dated February 14, 2006.

**S3. Record Keeping** (Regulation 2.16, section 4.1.9.2)

**VOC**

The owner or operator shall maintain monthly records of the throughput (in gallons) of ethanol during each calendar month and consecutive 12-month period..

**S4. Reporting** (Regulation 2.16, section 4.1.9.3)

**VOC**

The owner or operator shall include in the semi-annual compliance reports identification of all periods of exceeding the allowable annual throughput of ethanol. The report shall include the date, cause or reason for exceeding the annual



throughput limit, and measures implemented to prevent reoccurrence of the situation that resulted in exceeding the annual throughput limit for ethanol. If there are no periods of exceeding the annual throughput limit for ethanol during a reporting period, the owner or operator shall submit a negative declaration.

**U5 Comments**

1. This equipment was previously permitted under construction permit 24-07-C.
2. This emission unit is not subject to the STAR Program requirements since ethanol is not a listed TAC.

### Permit Shield

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all conditions of this permit. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance, pursuant to Regulation 2.16, section 4.6.1.

### Off-Permit Documents

#### Document

Regulation 1.05 Plan

#### Date

February 14,

1993

Revised Regulation 1.05 Plan

February 14, 2006

### Alternative Operating Scenario

1. The owner or operator is allowed to use a portable VCU (flare) when the carbon adsorption unit (VRU) is offline (not in operation) when loading gasoline through the terminal loading rack. The VCU's have been tested to ensure they meet the applicable NSPS requirements. The owner or operator is allowed to load No. 2 fuel oil through the terminal loading rack when the VRU is offline (not in operation). The source is required to monitor and maintain records to assure emission limits are not exceeded.
2. For the barge loading operation, the owner or operator is allowed to use propane as the gas-assist fuel if the natural gas supply is curtailed.

Source-Wide HAP Speciation			
HAP	CAS#	HAP	CAS#
Benzene	71-43-2	Naphthalene	91-20-3
Ethylbenzene	100-41-4	Toluene	108-88-3
Hexane	110-54-3	2,2,4- Trimethylpentane	540-84-1
MTBE	1634-04-4	Xylene	1330-20-7

**Insignificant Activities**

<b>Equipment</b>	<b>Quantity</b>	<b>Basis for Exemption</b>
VOC Storage tank less than 250 gallons	1	Regulation 2.02, 2.3.24
Storage tanks - diesel or fuel oil (not for sale)	2	Regulation 2.02, 2.3.25
Brazing, soldering or welding	1	Regulation 2.02, 2.3.4
Lab ventilating (non radioactive materials)	1	Regulation 2.02, 2.3.11
Blast cleaning - abrasives in water	1	Regulation 2.02, 2.3.13
Soil or groundwater remediation (passive)	1	Regulation 2.02, 2.3.20
Portable diesel or gasoline tanks < 500 gal	1	Regulation 2.02, 2.3.23
General Building Maintenance (Painting)	N/A	EPA White Paper
Oil/water separator (< 200 gal/day)	2	Exempt by rule Regulation 6.26, Section 1
Storage Tanks #164, #166, #167, #169, #182 (fuel oil, kerosene, Jet A or Gas Oil)	4	Regulation 2.02, 2.3.9.2
Storage Tanks #96, #97, #98, #132 (fuel oil, kerosene, Jet A or Gas Oil)	4	Regulation 2.02, 2.3.9.2
Storage Tank AA-1-183 (E32) 100 gallon	1	Exempt by rule Regulation 7.12

- 1) Insignificant Activities are only those activities or processes falling into the general categories defined in District Regulation 2.02, Section 2, and not associated with a specific operation or process for which there is a specific regulation. Equipment associated with a specific operation or process (Emission Unit) shall be listed with the specific process even though there may be no applicable requirements. Information contained in the permit and permit summary shall clearly indicate that those items identified with negligible emissions have no applicable requirements.
- 2) Activities identified In District Regulation 2.02, Section 2, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source.

- 3) For the vessels (Tank #'s 96, 97, 98, 132, 164, 166, 167, 169, 182) that store materials with a vapor pressure less than 1.5 psia (No.2 fuel oil, kerosene, Jet A fuel, and Gas Oil) or any other tank that stores VOC or HAPs, the owner or operator shall maintain records of the materials stored in the tanks. The company shall monitor and record the throughput (in gallons) of each product for each tank, and report the emissions to the District in accordance with Regulation 1.06.

### Comments

1. Based on Tier 4 ISCST3 refined air modeling, the carcinogenic risk for each Category 1 TAC is below 1.0 for non-industrial property and below 10.0 for industrial property with the annual product throughput limits specified in this permit and utilizing control devices. All Category 1 TACs were determined to be de minimis except for benzene. All non-deminimis sources of TACs including storage tanks, barge loading, truck loading rack, fugitive components, and fugitive emissions from the tanker trucks were included in the STAR Category 1 TAC EA Demonstration. The carcinogenic risk for all Category 1 TACs for all processes is below 7.5 for non-industrial property and below 75.0 for industrial property. The following Table represents the Carcinogenic Risk or  $EAG_C$  for benzene based on the maximum off-site concentration predicted from the Tier 4 ISCST3 air dispersion modeling runs. Since the maximum off-site Carcinogenic Risk meets the more stringent non-industrial  $R_C$  of  $< 1.0$  for individual process/process equipment and the plant-wide cumulative risk is  $< 7.5$ , the source has demonstrated compliance with the EA Goals for benzene. The  $BAC_C$  for benzene is  $0.13 \text{ ug/m}^3$ .

Emission Source	Max Concentration ( $\text{ug/m}^3$ )	Risk resulting from maximum off-site concentration
Tank 14	0.009	0.07
Tank 26	0.0094	0.07
Tank 48	0.0057	0.04
Tank 60	0.0153	0.12
Tank 106	0.0182	0.14
Tank 113	0.0077	0.06
Tank 119	0.0078	0.06
Tank 130	0.0112	0.09
Tank 133	0.0179	0.14
Tank 156	0.0095	0.07

Emission Source	Max Concentration (ug/m <sup>3</sup> )	Risk resulting from maximum off-site concentration
Tank 157	0.0069	0.05
Tank 162	0.0145	0.11
Tank 165	0.0124	0.10
Tank 174	0.0032	0.02
VRU (Truck Loading Rack)	0.0766	0.59
VCU (Barge)	0.0011	0.01
Components	0.0465	0.36
Truck Fugitive	0.0778	0.60
Portable Flare	0.067	0.52
	<b>Facility-wide R<sub>C</sub> -VRU</b>	<b>2.73</b>
	<b>Facility-wide Risk - Flare</b>	<b>2.63</b>

2. Marathon Petroleum Company, LLC is not subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources* since the company has accepted synthetic minor source limits for all regulated air pollutants for which the company is a major source.